

remarkable spillways despite the favorable conditions for backward melting owing to the presence of water warmed by flowing over bared rock; it had in that area a northwest-southeast alignment and in consequence of its power to press high up on the Adirondack slopes must have been able to maintain a more or less lobular frontage across the Champlain valley.

Mr Gilbert, it should be stated, has described to me deposits on the northern side of Covey hill in Canada which he interpreted as indicating the return of the ice sheet after it had disappeared from that vicinity. The evidence consists of what appears to be a patch of frontal moraine between two marine beaches.

In a very suggestive paper on this region Mr Upham has expressed the belief that in the very latest stage of the ice retreat from the St Lawrence valley, the ice stood in such a position still as to debar the sea from entering the Champlain valley but to permit the confluence of the glacial dammed waters in that valley with those over the upper St Lawrence and Ontario valleys. I am not able at present to affirm or deny the pertinency of this view.

The following details concerning glacial deposits serve to show the general character of the latest stage of ice action in the State.

*Dresden gravels.* A conspicuous deposit of glacial gravels occurs in the southern constricted portion of Lake Champlain at Dresden station on the Delaware & Hudson Railroad, and extends southward toward Chubb's Dock. The deposit is also exposed at Cold Spring on the Vermont side, where the gravels are screened and shipped in canal boats for use as road-metal.

The gravels show alternations from very fine to relatively coarse sediments with a stratification characteristic of outwash deposits. The materials in the terrace at Dresden become perceptibly finer southward, indicating that at the time of their deposition the drainage from the ice was southward through the Wood creek channel into the Hudson valley.

The coarse gravels which occur throughout the section indicate that if standing water existed at the time of their deposition, its surface was much below the level of that in which the subse-