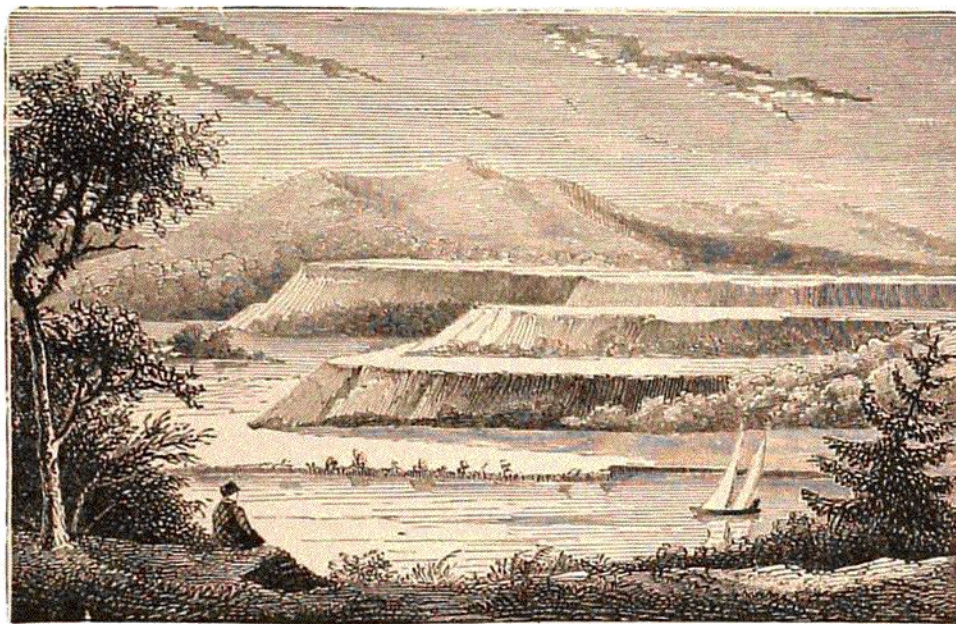


river valleys in the northern half of the United States, and in some of the southern half. Fig. 180 represents the terraces in the Connecticut valley, south of Hanover, N.H.

The fluvial beds in these terraces consist of sand, gravel, or clay; and ordinarily the stratification is very distinct. The sand-beds often have the cross-bedded stratification, illustrated on page 93, and in some places the flow-and-plunge structure.

The height of flood-plains in a valley is determined approximately by the height of the floods. Floods raised to different levels would tend to make plains at different levels, or terraces, in the valleys of a country. If a high flood-level had thus made a high flood-plain or terrace, other terraces might

180.



Terraces on the Connecticut River, south of Hanover, N.H. R. Bakewell, '49.

be formed at different levels below this during the decline of the flood, if it were slow and intermittent in progress, by lateral removal of material, or by new depositions. The enormous floods from the melting ice of a glacial era would be subject to just such slowly progressing and intermittent decline, because of the thickness of the ice, and its long continuance about the mountains, and might, therefore, leave the valleys with one or several ranges of terraces.

1. *Alluvial cones*. — The deposit of a rapid tributary at the base of the ridge it descends, where it meets the broad plain of the valley, piles up and makes a low elevation which is called an *alluvial cone*. The steeper cones are made by torrents at the base of rapid declivities, and have an angle of  $10^{\circ}$  or more, and those of large streams spread away at a very small angle, often  $1^{\circ}$  or less, and usually terminate in the main river of the valley, or a lake, with the form approximately of a delta. Figs. 181, 182 represent such cones from the upper Indus Basin, described and figured by F. Drew (1873).