cluded in the southern basin of deposit. In the Jura, and especially round Neuchâtel, Neocomian beds are typically developed. This stage and its two sub-stages have received their names from localities in that region where they are best seen (pp. 0948, 0949). (1) Valenginian—a group of limestones and marls (130–260 feet) with Toxaster Campichei, Pygurus rostratus, Strombus Sautieri (Natica Leviathan), Cidaris hirsuta, Belemnites pistilliformis, B. dilatatus, Ammonites (Oxynoticeras) gevrilianum, etc.; (2) Hauterivian—a mass of blue marls surmounted by yellowish limestones, the whole having a thickness that varies up to 250 feet; Toxaster complanatus, Exogyra Couloni, Janira atava, Perna Mulleti, Nautilus pseudo-elegans, Amm. (Hoplites) radiatus, Amm. (Holcostephanus) astierianus, etc. The Aptian and Albian stages (Gault) are recognizable in a thin band of greenish sandstone and marls which have long been known for their numerous fossils (Perte du Rhone, St. Croix).

In the Alpine region, the Neocomian formation is represented by several hundred feet of marls and limestones, which form a conspicuous band in the mountainous range separating Berne from Wallis, and thence into eastern Switzerland and the Austrian Alps (Spatangenkalk). Some of these massive limestones are full of hippurites of the Caprina group (Caprotinenkalk, with Requienia [Caprotina] Lonsdalei, Radiolites neocomiensis, etc.), others abound in polyzoa (Bryozoenkalk), others in foraminifera (Orbitolitenkalk). The Aptian and Albian stages traceable in the Swiss Jura can also be followed into the Alps of Savoy. In the Vorarlberg and Bavarian Alps their place is taken by calcareous glauconite beds and the Turrilite greensand (T. Bergeri); but in the eastern Alps they have not been recognized. The lowest portions of the massive Caprotina limestone (Schrattenkalk) are believed to be Neocomian, but the higher parts are Upper Cretaceous.

One of the most remarkable formations of the Alpine regions is the enormous mass of sandstone which, under the name of Flysch and Vienna Sandstone, stretches from the southwest of Switzerland through the northern zone of the mountains to the plains of the Danube at Vienna. Fossils are exceedingly rare in this rock, the most frequent

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Geneva, 1861; Renevier, Bull. Soc. Geol. France (3), iii.; A. Favre, *ibid.*; Von Hauer's "Die Geologie der Oesterr. Ungar. Monarchie," 1878, p. 505 *et seq.* E. Fraas, "Scenerie der Alpen."