

are left in doubt as to how large a portion is shown, and whether or not a fault intervenes between the Trenton and Utica, as is very likely. Faults so abound in the Champlain region that the finding and measurement of complete sections is a matter of great difficulty, so abound in fact that the geologist is more often called on to demonstrate their absence than their presence. If there is none here, the Trenton has obviously thinned greatly southward.

In the country between Lake Champlain and the mouth of the Mohawk, exposures of the formation are interrupted and fragmentary. At Glens Falls Prosser has measured several Trenton sections, but all terminate in that formation, so that the full thickness is not shown.<sup>1</sup> The greatest measured thickness in the vicinity is 63 feet, the basal portion consisting of very massive, black, fine grained beds, while above is much thinner bedded material, with some intercalation of gray, crystalline layers. If the total thickness were much greater than that shown in this section, it would seem that thicker sections would surely be forthcoming, and their nonappearance seems therefore significant. No passage beds seem to have been noted, but whether their absence is due to nonexposure of the proper horizon or not, is not clear.

Similarly, about Saratoga, Prosser's sections show a maximum measured thickness of  $37\frac{1}{2}$  feet for the Trenton, mostly thin bedded, but some massive, and here again the summit is not exposed, so that the entire thickness may be in excess of that amount, but is not likely to be greatly in excess [pl.6].

While the sections at these two localities are not decisive as to thickness, it seems probable that the entire amount can not greatly exceed the figures given, and hence that the formation has rapidly thinned in this direction.

In the lower Mohawk valley, in the Amsterdam-Hoffman region, Prosser and Cuming's sections afford accurate data concerning the formation.<sup>2</sup> They show considerable variation in thickness, the maximum amount being  $36\frac{1}{2}$  feet in the section at Morphy's, while the minimum is 20 feet. The lower 6 to 8 feet are of massive, often crystalline, limestone, while the remainder consists of thinner bedded and dark colored, more shaly material.

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<sup>1</sup>N. Y. State Mus. Bul. 34, p.480-82, pl.8.

<sup>2</sup>15th An. Rep't State Geol. p.647-59; N. Y. State Mus. Bul. 34, p. 419-64.