

small throw, or at least of small heave, the dikes being shifted laterally a few inches, or a few feet. More rarely the fault is of sufficient dimension to cause the disappearance of the dike on one side, its new position being beyond the limits of the outcrop.

Since these dikes are themselves of late Precambrian age, the fact that they are faulted would indicate a very late Precambrian age for the faulting, provided it is Precambrian at all. The only evidence of such age is the fact that the later faults, so far as they have been made out, are less numerous and of larger throw. While this is suggestive, it is but slender evidence for making such a discrimination.

As will shortly be shown, joints abound in the Precambrian rocks. In numerous instances evidence of vertical slipping along these joints is forthcoming, the immediate rocks being much crushed and sheared, and the planes of slip thoroughly slickensided. Excellent illustrations may be found in the numerous rock cuts along the railroad between Saranac Inn and Floodwood, in Franklin county. The anorthosite is seen to be locally much shattered, abundant joints dividing it into parallel sheets of a thickness of from 2 inches to 4 inches, the rock material much crushed and sheared and the sheets slickensided on both surfaces. The whole zone so affected varies from a few feet to a few yards in breadth, grading off into the normal rock. The frequency of the phenomenon in these excellent exposures suggests that it can hardly be local, and that the fact that it has not been more widely noted may likely be owing to the general poor and unsatisfactory character of the usual exposures in the woods. That, in other words, it is a common occurrence.

Here again the evidence that the faulting may be of Precambrian age is merely the difference in character. The Paleozoic faults are fewer and of large throw, and so far as noted do not consist of numerous small slips along closely recurring joint planes, with the production of a multitude of slickensided surfaces. Here again the evidence is far from conclusive. There is however a system of joints in the Precambrian rocks which antedates the Paleozoic, since there are more joint systems in the former than in the latter rocks. If it could be demonstrated that the system of joints along which this faulting took place was