

There are three general directions in which bowlders have been transported, in this country : to the southwest, to the south, and to the southeast. Those from the northeast to the southwest are the least common ; hence it is supposed that these were transported the earliest. Those from the northwest to the southeast are the most common. This course carried the bowlders very obliquely across the precipitous ridges of the Green and Hoosic mountains, in New England, for example, without deviating from a right line. The largest blocks usually lie nearest to the bed from which they were derived, and they continue to decrease in size and quantity for several miles ; sometimes as many as 50 or 60, and not unfrequently even 100 miles, though usually the sea-coast is reached short of that distance. The islands off the coast are covered with detritus derived from the mainland.

In the Western States large bowlders of Azoic rocks are found scattered over Silurian and Devonian strata ; and are significantly called *lost rocks*. About Lake Superior, the bowlders have been driven in a southwesterly direction. Around the Lake of the Woods the course is nearly from north to south.

The distance to which bowlders have been driven from their native beds in this country is very great. In New England they have been traced rarely more than from 100 to 200 miles. In Ohio and Michigan, Azoic bowlders are very common, which have been transported from the region of the great lakes. This would make their longest transit from 400 to 600 miles.

Hence the dispersion of bowlders may be of great service to the geologist. For if fragments of a peculiar kind of rock are found in any district, and it is wished to know their source, by following the direction of the drift current, as indicated by striated rocks in the vicinity, the parent ledge will be found.

In passing to the eastern continent, we find, as already stated, that on the eastern coast of England the drift came from Scandinavia and from Scotland. On the west side of England, the bowlders were carried from the northwest to the southeast. The dispersion of blocks from several local centres, as Wales, Ben Cruachen, and Ben Nime, seems to be independent of that more general force, apparently marine, that swept southeasterly over the whole island, and also over Ireland.

The drift of Scandinavia reaches as far east as the Uralian mountains. Siberia is said to be mostly free from it. In northern Syria drift phenomena have been observed. Bowlders of green-