

another might be found to the right of our line if it were considered more direct on actual location. From the commencement of the barrens at the twentieth mile, the country assumes a more evenly rolling aspect, with no very considerable elevations or depressions, along the immediate route followed. Isolated tofts rise here and there on either side, the most conspicuous of which are the so-called Topsails, which lie in a direct line, at nearly equal intervals apart on the central ridge or summit level of the country, trending nearly east and west magnetic. This ridge was crossed between the twenty-seventh and twenty-ninth miles, at an elevation of 1,036 feet above the Badger River, or about 1,380 feet above sea level. The nearest or main Topsail, distant about a mile and a half to the east of our line, rose above this point 306 feet, which gives it an elevation of 1,686 feet above sea level. Once past this dividing ridge, a regular down grade takes place to the headwaters of Kitty's River, about the thirty-fifth mile. The total fall in a distance of eight miles only amounts to about 200 feet, that is, 1 in 211—a very easy gradient. From the thirty-fifth mile the fall down Kitty's River valley becomes more and more rapid. It reaches 130 feet at the first crossing of the river, just at the thirty-seventh mile, making a down grade of 1 in 81. In the next four miles, which reaches just below the fork of the river, a fall of 235 feet occurs, equal to 1 in 90, and in the next three miles, to the crossing of the main branch above Kitty's Brook Fall 344 feet, or about 1 in 46. From Kitty's Brook to the commencement of the flat country bordering the main river, or Sandy Lake branch of the Humber, there is a fall of some 200 feet in a distance of about three miles, or about 1 in 80. The total fall from this to the head of Grand Lake is not much over 150 or 160 feet more in about nine miles. Here a choice of several routes may be selected across this valley; but that represented on the plan is the most direct. It passes inside the suite of ponds on Goose Brook, and strikes across the head of the Grand Lake in a nearly straight line, avoiding, as far as possible, the more marshy or swampy ground. Sandy Lake River is crossed about one mile from its entrance into the Grand Lake just beyond the fifty-fifth mile of distance. Five miles more reaches across the head of Grand Lake and the outflowing, or Junction River. The line over this section is made to curve slightly to the left, so as to avoid some very extensive and heavy marshes further inland, and