

grand hymn, *Te Deum Laudamus*. Among the most precious treasures of this church is the Ambrosian Service-book in six volumes, richly illuminated on vellum, with the musical notes. Other places of interest in Milan, are, the modern amphitheatre, seated for 30,000 spectators; extensive hospitals; great libraries; fine gardens; valuable art-galleries and, last, though not least, the remains of that celebrated picture of the Last Supper, translated from the brain of Leonardo da Vinci on the convent wall, some four hundred years ago, which has gone through more editions than the work of any other mortal man. In this dingy apartment, rival artists were at work doing their best to imitate the general outline of the picture and to catch, before they disappear for ever, the few discernible touches of the master-lincher; for the painting has been so badly cared for and so often "restored," or rather, clumsily re-daubed, that little of the original impress of genius remains on it. The figures are all life-size. The Central One has apparently suffered less than the others. Though now sadly defaced by age and exposure to damp, there is enough left to warrant the belief that as Leonardo left it, that head divine was full of grace and truth, and "altogether lovely." Strange, that the head of Judas Iscariot has kept better than that of any of the twelve! Soon after leaving Milan, we found ourselves skirting the shores of Como, Lugano, and Maggiore, accounted by most travellers the most beautiful lakes in the world. In our rapid course, however, they served but as the vestibule to the grander panorama that lay before us as we passed through the heart of the Alps, *via THE ST. GOTTHARD*.

This new railway, from Chiasso to Lucerne, is on Swiss soil, and it is a Swiss commercial enterprise, though it was subsidized by the Governments of Italy, Germany and Switzerland, to the extent of one half the cost of construction. Including two short branch lines, it is only 158 miles long, but it cost nearly fifty millions of dollars, or about \$316,450 per mile. It has fifty-six tunnels, aggregating twenty-five miles and a half, and sixty-six bridges and viaducts, all of the most substantial description. The great tunnel itself—nine and a quarter miles in length—was begun in 1871 and completed in 1882, at a cost of \$11,-

375,000. It is twenty-eight feet broad and twenty-one feet in height—lined throughout with masonry, and laid with a double line of rails. The difficulties to be overcome seemed at the outset to be almost insurmountable. First, a long paper war had to be fought, rival interests and local jealousies had to be compromised and adjusted; then financial difficulties soon cropped up that threatened to shipwreck the whole concern. Enormous masses of granite and quartz had to be blasted; sudden incursions of water from above and below flooded the works: the masonry was frequently crushed by pressure from above, and not the least of all, were the inevitable strikes and riots among the workmen.

But Louis Favre, the bold engineer who triumphed over every difficulty, did not live to see his work completed. He was stricken with apoplexy, and died in the tunnel, when the workmen on either side were almost in hearing of each other's picks and hammers. The tunnel is the longest in the world, and for aught I know, it is the most stupendous undertaking of the kind in existence. In the centre, it is 3786 feet above sea-level, and 6500 feet below the peaks of St. Gothard. The old zig-zag road over the pass reaches an elevation of 7000 feet. Sixty thousand persons used to cross the pass annually, but it is deserted now. Although upwards of twenty years have intervened since I went that way, I have a distinct recollection of the glorious vision that rewarded the toil of ascent when we reached the summit, to find ourselves at sunrise among everlasting snows reflecting the crimson of the sky; the Hospital, the twin lakes, and the Albero where we ate our frugal breakfast, are all still fresh in memory. And yet the easier route by which we reach the tunnel, to-day, and by which we leave it, is very far from unromantic. Indeed, the scenery all the way from Bellinzona, on the Italian side, is the grandest imaginable. It takes us up the valley of the Ticino, walled in with beetling cliffs, and across hanging bridges, with glimpses every now and then of lofty waterfalls, into the dismal *Val Tremola*, and by Faido, beautiful for situation, to Airolo, where we enter the tunnel.

It puzzled me for some time, to know how we were to get up to that *rat-hole*, as it looked in the distance. This is how it is done. At either end of the great tunnel