

tinguished members of the Institution of Civil Engineers. As the general plan and details of this bridge are quite familiar to the profession through the reports and illustrations published in all the engineering papers, it is unnecessary here to weary the reader with a descriptive account of the work and its progress up to the present time. The object of this reference is to point out the amazing boldness of the design in regard to the length of spans. Until this plan was produced the construction of any railway bridge of spans much exceeding five hundred feet was deemed impracticable. It is true suspension bridges of twice or three times that length have been built, but it is generally conceded that bridges of this kind are unsuitable for ordinary railway traffic. The Forth bridge has two spans of 1,700 feet each, and two half-spans of 680 feet each. Here, then, at a bound, the span for a railway bridge is extended from five hundred to seventeen hundred feet! The creative faculty accomplishes this marvel by the employment of simple and well known methods, only extended far beyond any previous example. Brackets, like arms, are extended from each pier 675 feet, leaving a space of 350 feet between their approaching ends. This space is then filled in by an ordinary truss, and the thing is done. Happy thought. It is called a *cantilever*, because the two brackets are levers, and they are balanced by corresponding levers on the other side of the pier.

This enormous structure has now been for several years in progress, and it may yet take another year to finish it. Meanwhile the cantilever principle has already been adopted and carried out in many bridges on this side of the Atlantic, but in spans scarcely exceeding the old limit of five hundred feet. Many have been constructed in a wonderfully short space of time, which is a marked feature in the railway enterprise of the present day.

Let the student of civil engineering ponder these things, and, as he advances in his studies, let him ask himself the question, whether he possesses the requisite fitness, and has the taste and inclination to enter the lists in the active pursuit of the profession. No one else can tell him if he will become an engineer. *Poeta nascitur non fit*—and so it is with the engineer.

SAMUEL KEEFER.

#### DRYBURGH ABBEY.

##### SECOND PART.

But, ah! that mournful dream proved true, the immortal Scott was dead,

The great magician of romance and knightly lay had fled,  
The "Ariosto of the North," the voice of Tweed no more  
Might pour its music o'er our hearts and charm us as of yore.

The spirit of departed days recalled my dreaming mood,  
Once more methought within the vale of gloom and death I stood;  
Still far from east to west that train of mourners swept along,  
And still the voice or vision of my waking dream was song.

I saw the courtly *Euphuist* with *Halbert of the Dell*,  
And like a ray of moonlight passed the *White Maid of Avenel*,  
*Lord Morton*, *Douglas*, *Bolton*, and the *Royal Earl* marched there  
To the slow and solemn funeral chant of the *Monks of Kennaquhair*.

And she, on whose imperial brow a god had set his seal,  
The glory of whose loveliness grief might not all conceal,  
The loved in high and princely halls, in low and lonely cots,  
Stood *Mary*, the illustrious, yet hapless *Queen of Scots*.

The firm devoted *Catherine*, the sentimental *Graeme*,  
*Lockleven*, whose worn brow revealed an early blighted name,  
The enthusiastic *Magdalen*, the pilgrim of that shrine,  
Whose spirit triumphs o'er the touch and makes its dust divine.

Next *Norna* of the *Fisful-Head*, the wild *Reim-kennar* came,  
But shivered lay her magic wand and dim her eye of flame,

Young *Minna Troil*, the lofty-souled, whom *Cleveland's* love betrayed,

The generous old *Ullaler* and *Mordaunt's* sweet island maid.

Then followed *Lord Glenwarloch*, first of *Scotia's* gallant names,  
With the fair romantic *Margaret* and the erudite *King James*,  
The wooed and wronged *Hermione*, whose lord all hearts despise,  
*Sarcastic Malagrowth* and the faithful *Moniplies*.

Then stout *Sir Geoffrey of the Peak* and *Pevenil* swept near,  
*Stern Bridgenorth* and the fiery *Duke* with knight and cavalier,  
The fairest of fantastic elves, *Fenella* glided on,  
And *Alice*, from whose beauteous lips the light of joy was gone.

Then *Leicester*, *Lord of Kenilworth*, in mournful robes was seen,  
The gifted, great *Elizabeth*, high England's matchless queen,  
*Tressilian's* wild and manly glance, and *Varney's* darker gaze  
Sought *Amy Robsart's* brilliant form too fair for earthly praise.

And *Quentin's* haughty helm flashed there, *Le Balafre's* stout lance,  
*Orleans*, *Crevecoeur* and brave *Dunois*, the noblest knight of France,  
The wild *Hayraddin* followed by the silent *Joan de Troyes*,  
The mournful *Lady Hamevine* and *Isabelle de Croye*.

Pale sorrow marked young *Tyrrel's* mien, grief dimmed sweet *Clara's*  
eye,  
And *Ronan's Laird* breathed many a prayer for days and friends  
gone by,  
"Oh mourn not!" pious *Cargill* cried, "should his death woe impart,  
Whose cenotaph's the universe, whose elegy's the heart?"

Forth bore the noble *Fairford* his fascinating bride,  
The lovely *Lilias* with the brave *Redgauntlet* by her side,  
*Black Campbell* and the bold redoubted *Maxwell* met my view,  
And *Wandering Willie's* solemn wreath of dark funereal yew.

As foes who meet upon some wild, some far and foreign shore,  
Wrecked by the same tempestuous surge, recall past feuds no more,  
Thus prince and peasant, peer and slave, thus friend and foe combine  
To pour the homage of their hearts upon one common shrine.

Around in solemn grandeur passed the bravest of the brave,  
And deep and far the clarions waked the wild dirge of the grave,  
On came the *Champion of the Cross*, and near him, like a star,  
The regal *Berengaria*, beauteous daughter of Navarre.

The high heroic *Saladin*, with proud and princely mien,  
The rich and gorgeous *Saracen* and the fairy *Nazarine*,  
There *Edith* and her *Nubian slave* breathed many a thought divine,  
Whilst rank on rank—a glorious train—rode the *Knights of Palestine*.

Straight followed *Zerubbabel* and *Joliffe*, of the Tower,  
Young *Wildrake*, *Markham*, *Hazledeane*, and the fairest nymph, *May*  
*Flower*,  
The democratic *Cromwell*, stern, resolute, and free,  
The *Knight of Woodstock* and the light and lovely *Alice Lee*.

And there the crafty *Proudfute* for once true sorrow felt,  
*Craigdallie*, *Charteris* and the recreant *Conachar the Celt*,  
And he whose chivalry had graced a more exalted birth,  
The noble minded *Henry* and the famed *Fair Maid of Perth*.

The intrepid *Anne of Geierstein*, the false *Lorraine* stepped near,  
Proud *Margaret of Anjou* and the faithful, brave *De Vere*,  
There *Arnold* and the *King Rene* and *Charles the Bold* had met  
The dauntless *Donnerhugel* and the graceful young *Lisette*.

Forth rode the glorious *Godfrey* by the gallant *Hugh the Great*,  
While wept the brave and beautiful their noble minstrel's fate,  
Then *Hereward the Varangian* with *Bertha* at his side,  
The valorous *Count of Paris* and his amazonian bride.

And last among that princely train raised high *De Walton's* plume,  
Next fair *Augusta's* laurel wreath, which time shall ne'er consume,