



THE CONTRACTORS AND MECHANICS' DINNER TO THE CONSTRUCTING ENGINEER OF THE CRYSTAL PALACE, C. E. DETMOLD, ESQ.—On the evening of the 13th inst. the principal mechanics and contractors engaged in the erection of the Crystal Palace, gave a Dinner in honor of C. E. Detmold, Engineer to the Crystal Palace Association. The company, to the number of about 70 persons, sat down to the entertainment; Mr. Delamater of the firm of Hogg & Delamater, presided.

Dodworth's Band was present, and discoursed music during the evening. The table was beautifully and appropriately decorated. The most appropriate of the ornaments was a miniature representation of the Crystal Palace. This was located immediately in front of the President of the occasion.

This dinner was got up and given on account of the Directors neglecting, at their Dinner, given at the opening of the Crystal Palace, to recognize the claims of the mechanics who planned and erected the edifice. This banquet went off much better than the one given by the Directors, notwithstanding there were no golden epaulets or ostrich-feathered gentry present.

Mr. Detmold made a speech when his health was drank, of which the following is the substance:—

"Gentlemen; All of us may point with just pride to the structure which we have reared on Reservoir square; it fulfills nobly the purpose for which it was designed, and it is a gratifying fact that, amid all that has been said and written of the Exhibition, the building itself has not only been always exempt from censure, but it has invariably been spoken of in terms of unqualified praise.

There is, however, one point in connection with it that has caused disappointment to the public here and abroad, and mortification to the Directors of the Association. I allude to the non-completion of the building in time for the promised opening of the Exhibition on the 2nd May, 1853."

On two public occasions the Directors by an extraordinary omission, have been the means of creating an impression that the disappointments arising from not having the Palace open at the time appointed, was the result either of imperfect arrangements for the execution of the work, or a want of sufficient energy in urging its progress.

No doubt, gentlemen, it is to this extraordinary omission on the part of the Directors to make any reference whatever to the builders of the Crystal Palace, that is due, in some measure, the very handsome compliment with which you have honored me this evening.

It can only have been from the misapprehension of the facts, or the character of the difficulties which have attended this undertaking, that the Directors of the Association could have felt themselves justified in leaving me, by their pointed silence, in a position before the public which makes a reference to my connection with the building necessary.

My connection with the Association for the Exhibition of the industry of all Nations, dates from August 11, 1852. Up to that moment I had no knowledge of it whatever, except in a general way.

The project itself had been conceived as early as the Autumn of 1851, immediately after the close of the great London Exhibition. In March, 1852, a charter had been obtained from the State of New York.

And on the 12th July, 1852, the Board of Directors had formally announced to the world that the Exhibition would be opened on the 2d of May, 1853. Meanwhile they had collected eight or ten different designs for an Exhibition Building; most of them, however, were architectural sketches, rather than definite plans. But the Board shrank from the responsibility of making a selection.

It was at this critical junction that I consented

on 11th August, 1852, (just one month after their announcement that the Exhibition would be opened on 2nd May, 1853,) to accept the arduous and responsible post of Superintending Architect and Engineer, on condition that I should be authorized to advise upon all professional questions with Horatio Allen, to which the Board most readily consented.

The first duty that devolved upon me, after entering into the service of the Association, was to select from the several designs in their possession one that should meet as far as possible the requirements of the proposed Exhibition, and the circumstances in which the Association had been placed.

In the report upon the Designs submitted by me to the Board of Directors on the 26th of August, 1852, after establishing the chief conditions that should be satisfied by any design adopted, I said:

"In applying these cardinal conditions to the plans before me, I regret to say I find no one that satisfies them all; but the one that comes nearest doing so is the design of Messrs. Carstensen & Gildemeister.

As to the estimated cost, and especially as to the important point of timely completion of the building, I said in my Report that the plan recommended "presented no greater difficulties than any other, except that of Messrs. Bogardus & Hoppin."

I had thus brought clearly to the view of the Board, which of the established conditions were and which were not fulfilled by the design of Messrs. Carstensen & Gildemeister, but the Board accepted it unhesitatingly, subject to all its uncertainty as to time and expense.

No sooner was this design adopted than its execution was begun in good earnest: the progress of the work was urged by me, through all seasons and all weathers, and by day and by night, whenever and wherever night work could be done with advantage.

Nevertheless it is due to myself to state that want of working drawings continued throughout the entire construction of the building, and was a constant source of deep anxiety to me; and as early as November 18, 1852, I had made it the subject of an earnest communication to the Board, in which I represented fully the effect it would have upon the completion of our building.

In the next place it is proper to state that the anticipation that the larger foundries (of the country) would co-operate extensively in this work, were not at first realized; and it was only by an extreme subdivision of the contracts that I was enabled to secure the execution of the work in any reasonable time.

Another circumstance not anticipated by any one, and which operated most unfavorably upon our work, was the extraordinary advance in the prices of iron. The great bulk of the work had to be put together and erected during the rigorous winter months, in an exposed locality and without shelter.

And yet with all these adverse circumstances, such was the active and energetic spirit of the parties who did engage in the work, that any one, conversant with enterprises of this kind, must concede that the time consumed from the first inception to the completion of the building, needs no apology.

On the 1st September, 1852, nothing was in existence of the building but a mere architect's sketch; and during the nine months following our Crystal Palace has sprung into complete existence, covering four acres of ground, and composed of over 1,500 tons cast iron, and 300 tons of wrought iron.

Now gentlemen, it is not for me to say upon what grounds the Board of Directors announced on July 12, 1852, that the Exhibition would be opened on the 2nd of May following, for at the time of this announcement, I had no connection with the enterprise. Nor does it devolve upon me to explain why they permitted that announcement to remain unchanged. But it is due to myself to state that I expressed myself, as to the time of completion with caution, proper at an early stage of my connection with the enterprise; and so soon as the character of the work and the difficulties attending it began to develop themselves, the President of the Association was fully and constantly apprised by me of the

impossibility of having the building completed in time for the promised opening in May, 1853.

I have availed myself of the opportunity which your indulgence has afforded me, to make such a plain statement of facts as will, I think, effectually set at rest the question as to whether the disappointment resulting from the non-opening of the Exhibition on the day promised by the Directors was in any wise chargeable to those intrusted with the construction of the Crystal Palace."

[We have published the above speech for four reasons. First, it is the only account of the delay in opening the Palace that we have seen printed. Second, it informs us that the President was well aware long before the 2nd of May, that it could not be completed by that time, and yet the world was not unimpressed by this fact, to the no small discredit of American punctuality. Third, who selected the design. Fourth, that there has been dissatisfaction on the part of the Directors—this we infer only from what was said.

How much the delays were caused by Messrs. Carstensen & Gildemeister, as alleged, not furnishing the working drawings in season, we do not know; these gentlemen have denied that it was their fault. The Directors had probably much reason to find fault in many respects, and we suspect that the blame of the Crystal Palace not being ready on the 2nd of May, must rest on that absent-minded gentleman, Mr. Nobody. The building is a beautiful one, but its selection, we believe, taking all things into consideration, was not judicious. The multiplicity of patterns which appear to have been required for the castings, exhibit a want of clear and simple judgment somewhere.

PRELIMINARY REMARKS.—The machinery in the Exhibition is not by any means all arranged or in working order. There is considerable space yet to be filled up, but since our last number was issued many new machines have been received and arranged. All the space, we have been informed by the Superintendent, Mr. Holmes, has been spoken for long ago, and we may expect to see it all occupied by the first of next month.

GOOD AND BAD.—We must say that with many new and excellent improvements in machinery, there is much that is defective. It appears to us, that with all our light and knowledge, there are many who live in the dark ages, and prefer darkness to light. This may be owing to the peculiar construction of their minds, they viewing a defect as an improvement, just the same as the Hindoo laborer, who prefers to carry his earth in a basket and cannot be persuaded that a wheel barrow is a superior mode of transporting it from one place to another in making roads. There is much in the Exhibition which (as any who visits it will see) displays a want of scientific information, and betrays a lack of good reading, without which no mechanic can be intelligent.

THE STEAM ENGINES.—The machinery in the Arcade of the Exhibition is driven by two steam engines; there are three such motors in it, which are more conspicuous than all other machines in the Palace. One is a beautiful walking-beam engine, built at the works of Corliss and Nightingale, at Providence, R. I. Another is a double horizontal engine built at the Lawrence Machine Shop, Mass. It has two cylinders of 15 inch bore, and 35 inch stroke each. The third is a horizontal engine built at the Winter Iron Works, Montgomery, Ala. These engines are well made and of beautiful construction. When they are in operation, a lofty and sublime idea of the power of steam is impressed upon the mind. Ignorant indeed of the steam engine are those men who have, within a few years past, in this city—prominent though some of them are for a scientific reputation—decried this useful agent, and who have endeavored to exalt their own ill-digested and contumacious notions above those of the great Watt; their names will be known in engineering story as ignorant blunderers, while his will shine bright through all coming time. Fulton and Watt indeed belong to the past, but Capt. Ericsson does not yet rule the present,—no, Ericsson belongs to the mistakes of the past. Watt rules the present in the Machine Arcade of the Crystal Palace. Every person who visits it feels the

full force of this truth. There the beam engine, like a graceful actor with all its parts playing harmoniously, exhibits the perfection of mathematical and artistic skill—the abstract and the concrete are here moulded into beauty and usefulness—the steam engine is the most perfect product of Venus and Vulcan. As the boilers which supply the steam to these engines are placed outside of the building, when they are set in motion, there is something truly thrilling in seeing them start from their slumbers into giant activity. No wonder the poor Hindoo, when he first saw a steam engine set in motion, exclaimed, "he has a spirit within him." When Dr. Page's electric engine was exhibited in this city two years ago, and when, by the mere turning of a key, it was set flying away in a sheet of flame, it extorted rounds of applause; how much more would one of these steam engines in the Crystal Palace extort "cheers repeated" from an audience of the most learned men in the world, if for the first time in their lives it had been set in motion before them. Look, ye shallow panderers to deceptive schemes, at those huge iron arms moving with irresistible power, precision, and velocity, and tell us if they do not present reasons, without debating the question, why the hot air engine, after a place was spoken for it, dared not appear beside these stern apostles of steam.

There are four rotary steam engines in the Crystal Palace: they are all small, and we have not yet been able to learn the name of their authors, excepting those of Ebenezer Barrows and R. C. Bristol, of Chicago, Ill., noticed in the last volume of the "Scientific American." We have not been able to see any of these rotary engines in motion yet, but that of Mr. Barrows is well known to our readers. It was illustrated on page 25, of our last volume, and a larger one than that in the Exhibition propels the inventor's steamboat "Rotary," which is now running as a passenger boat between Newark and Bellville on the Passaic River. The inventor is a man of untiring energy and perseverance of purpose. If he did not think his invention a good one, he is not a man that would say a word in its praise upon any account.

There is also a model of a steam engine on one of the tables, which has the lazy-tongs arrangement attached to the piston rod, and connected with a long crank, in order, as the inventor supposed to get power by long stroke of crank from a short stroke of piston—that is what people ignorant of mechanics call "increasing the leverage to gain power," as if there were any power in a lever. The lazy tongs has been proposed to us to get a long stroke of a saw from a short stroke of a steam engine, but we discouraged the idea. When will people learn wisdom in mechanical science.

GOLD BEATING MACHINE.—There is one machine for beating out gold into leaf. This has been heretofore considered an impracticable business for machinery, hence it was supposed by many that it could only be accomplished by hand labor. The name of the inventor and patentee is Vine, but it is not the only patent machine for the same purpose in the country, yet it is the oldest. There surely can be no positive obstacles to the accomplishment of any kind of work by machinery when all the work is but a repetition of one process, which gold beating is. The peculiar motions for changing the gold to be beaten have only to be obtained and all the rest is easy. This effect is apparently obtained in this machine; of course it is not possible for us to speak particularly of the work which it produces.

THE LARGEST PAIR OF SHEARS IN THE WORLD.—There is one pair of shears for cutting iron, made upon the principle of Dick's patent, which are worthy a journey from Oregon to see in operation. The jaws are four feet long, and they cut through plate iron of an inch in thickness, as easily as a hungry Welchman (no offence to worthy Taffey) could masticate a piece of cheese. We have seen this machine cutting plates of iron of half an inch in thickness, with great rapidity, and making an exceedingly clean edge, a very important consideration in such machines.

Persons from the country should be careful, when they come to this city, in selecting the proper cars and stages for the Crystal Palace.—Don't get on the wrong cars.