MOUNTAIN COTTAGES.

In the neighbourhood of the Lakes, these dwellings, even at the present time, are found scattered over valleys, under hills, upon rocks, and in retired and secluded places without any intrusion of more assuming buildings.

These erections are, in many instances, of the colour of the native rock, out of which they have been built:—

"Clustered like stars; some few but single most,
And lurking dimly in their shy retreats;
Or glancing on each other cheerful looks
Like separated stars, with clouds between."

The dwellings, in most cases, have descended from father to son, yet necessarily with changes in their circumstances: they have received without incongruity additions and alterations adapted to the need of each successive occupant; so that these humble dwellings remind the contemplative spectator of a production which has risen from the native rock. Among the numerous recesses and projections in the walls, and the different stages of the roofs, are seen bold and harmonious effects of light and shade: nor will the singular appearance of the chimneys escape the eye, some almost upon a level with the roof, others of a quadrangular shape, rising one or two feet: the covering of the roof is generally of rough slates, rudely taken from the quarry; and being very uneven in their surface they have furnished places of rest for seeds of lichens, mosses, ferns, and flowers. Hence buildings, which, in their very form, call to mind the process of nature, do thus, clothed with this vegetable garb, appear to be received into the bosom of the living principle of things as it acts and exists among the woods and fields, and, by colour and shape, affectingly direct the thoughts to the tranquil course along which the humble-minded inhabitants have, through so many generations, been led.

G. J. R.

UNION OF ENGINEERS AND ARCHITECTS.

As a beautiful design for a building is useless, however well it may look to the eye of a casual observer, if it cannot be put into execution, so is a project unavailing, unless the object it has in view can be practically effected. I therefore trust you will allow me to follow up some former suggestions which I made in a letter addressed to you on the important question of a union between the members of the architectural and civil engineering professions, to which I must beg in the first instance to refer your readers, who will find it in THE BUILDER, of the 8th of February, 1851. The subject is one of such consequence to the position and advancement of constructive art, that I sincerely wish to see it taken up *con amore*, by influential members of engineers' and architects' Institutions. In our isolated state as bodies corporate, we may be compared to like quantities in Algebra, having positive and negative signs, and consequently neutralizing each other's efforts and destroying one another's very existence, instead of combining in a formidable array of numerical strength to further our common aims. I would propose, then, as a prelude to our acting in concert,—a consummation I hope will be realised at no very distant period,—that the societies of engineers should invite members of the architectural profession to a series of *soirées* or *conversazioni*, where they would have the opportunity of reading papers on some subject connected with the principles of construction, or the decoration of structures, and where members of both professions could discuss all matters of mutual interest. Architects should then, in their turn, afford a like occasion to engineers for reciprocating ideas which would tend to the common good, and thus a solid foundation would be laid for the construction of a united society, which would be cemented by an enduring and mutually supporting bond of friendship.

I think, also, that much good might be done by the establishment of a club, as a place of resort for engineers and architects, to which military engineers should also be eligible. For this purpose, they might all combine together, as the naval and military professions have done, and find the benefit of doing, in their United Service, Army and Navy Clubs, &c.

W. H. V. S.

LONDON IMPROVEMENTS AND THE POOR.

Upreak the gorgeous palace high!
Let column after column rise,
And art put forth its symmetry.
And sculpture warm 'neath royal eyes.
Oh! 'tis a goodly sight to see,
In Britain, wealthy, proud, and free,
Her monarch's home a temple fair,
Bedeck'd with all things rich and rare
A tributary world can bring
For England's queen or England's king.
Build for the queen!—forbid it not;
But, ah! who builds the poor man's cot?

Build for the merchant, rear the mart!
For commerce make a splendid home:
Tax well each architectural art:
Boldly upraise the spacious dome.
There shall a mighty congress meet,
The lords of Britain's merchant-fleet,
The busy traffickers, whose stores
Are garnish'd from a myriad shores:
But, oh! the squalid home that mocks
The labourer of our merchants' docks!
Be not the earnest cry forgot,
Who builds, who builds, the poor man's cot?

Build high the column to the dead
Who died for England! it is well.
"Those stones might give the living bread,
Might build warm homes where men might dwell,"—
The poor man thinks—a churlish thought,—
But he were quickly better taught
If those who rear'd that column's height
Would give the next "convenient site"
To build homes, where at moderate rent
The labouring man might rest content.
We cannot change, then cheer his lot—
Who builds, who builds, the poor man's cot?

Who builds? who builds? Alas, ye poor!
If London day by day "improves,"
Where shall ye find a friendly door,
When every day a home removes?
Wide streets "low neighbourhoods" reclaim,
Where virtue lives next door to shame.
Who will build homes to house again
Those we are making homeless men?
"Down with you haunt of vice," we cry—
Alas! there poor men live and die.
Then ere we triumph o'er the spot,
Who builds, who builds, the poor man's cot?

R. J.

Books.

Horæ Ægyptiacæ: or, the Chronology of Ancient Egypt, discovered from astronomical and hieroglyphic records upon its monuments, including many dates found in coeval inscriptions from the period of the building of the Great Pyramid to the times of the Persians. By REGINALD STUART POOLE. With plates. Murray, Albemarle-street. 1851.

THIS elaborate inquiry is an enlarged edition of a series of papers on the ancient chronology and history of Egypt published in the *Literary Gazette* by Mr. Poole, who is a nephew of Mr. Lane, celebrated for his Egyptian lore, and his (shall we say) destructive exercise of it on "the Arabian Nights" of our childhood. The work is published under the auspices of the Duke of Northumberland.

The peculiar feature in Mr. Poole's researches is the maintenance of the assertion that many of the kings in the interminable dynasties of Egypt were contemporaneous; thus greatly altering our ideas of the chronology of ancient Egypt. On a subject already teeming with perplexities and differences of opinion, we have thus one more difference added, either to increase the sum total or to clear it all away. "I am aware how greatly I disagree with all others who have written on this subject," the author observes, "but it is a sufficient consolation to me, since all differ, that it is little more to differ from all others, than to differ from all of them but one." It remains to be seen, therefore, how this bone of contention will be picked by the already differing Egyptian archæologists in future works. For our own part we confess that in studying the majority of authors on this subject, we have ever felt as if we were walking on thin and brittle ice, and liable to fall through at every step. We would advise a still more patient and penetrating research amongst the records of Egyptian theurgy, the rolls of magical records, and other stores of the "wisdom" of ancient Egypt—or rather, of the superstitious remains of that wisdom: there we doubt not some light would be got whereby to decipher much that is obscure on its monuments.

On the subject of the pyramids, of course, the author gives his peculiar views. "It has been supposed," he remarks, "that each pyramid was the tomb of a sovereign or sovereigns, and that all the pyramids were built before the Shepherd iovasion, being the tombs of successive kings. It is enough to remark that ancient authority, the evidence of the monuments, and the relative positions of pyramids, are against this theory; and the monuments distinctly show that contemporaneous kings were buried in the pyramids aronnd Memphis."

Hand-Book of Natural Philosophy and Astronomy. By DIONYSIUS LARDNER, D.C.L., formerly Professor of Natural Philosophy and Astronomy in University College, London. First Course—Hydrostatics—Hydraulics—Pneumatics—Sound—Optics, with upwards of four hundred illustrations. Taylor, Walton, and Maberly, Paternoster-row. 1851.

LARDNER and Mechanical Philosophy, though not exactly synonymous terms, have long been associated somewhat as the sublimer subject of Astronomy has been with the name of Herschel; not so much as a discoverer certainly, but as a teacher and interpreter of nature's laws. No one, therefore, can be far wrong in recommending a work on Natural Philosophy by Lardner. In the composition of the present work the author has had in view the satisfaction of those who desire to obtain a knowledge of the elements of physics without pursuing them through their mathematical consequences and details. The methods of demonstration and illustration have accordingly been adapted to such readers. The work has been also composed with the object of supplying that information relating to physical and mechanical science which is required by the engineer, the artisan, and others such as those who are preparing for the universities, and, in fine, by those who, having already entered upon the active pursuits of business, are still desirous to sustain and improve their knowledge of the general truths of physics and of those laws by which the order and stability of the material world are maintained. The second course will contain heat, electricity, magnetism, and astronomy.

As a specimen of the work we may qnote a portion of the author's remarks on the strength of materials:—

"*Strength of a beam increased by partially sawing it transversely and inserting a wedge.*—According to Peschal, the transverse strength of a beam of timber may be greatly increased by sawing down from one-third to one half of its depth, and driving in a wedge of metal or hard wood until the beam is forced at the middle out of the horizontal line, so as to form an angle presented upwards. It was found by such an experiment that the transverse strength of a beam thus cut to one-third of its depth, was increased one-nineteenth: when cut to one-half of its depth, it was increased one twenty-ninth; and when cut to three-fourths of its depth, it was increased one eighty-seventh.

Why the strength of a structure is diminished as its magnitude is increased.—It follows from the principles which have been explained, that if any structure be increased in magnitude, the proportion of its dimensions being preserved, the strength will be augmented as the squares of the ratio in which it is increased. Thus, if its dimensions be increased in a two-fold proportion, its strength will be increased in a four-fold proportion; if they be increased in a three-fold proportion, its strength will be increased in a nine-fold proportion, and so on. But it is to be considered, that, by increasing its strength in a two-fold proportion, its volume, and consequently its weight, will be increased in an eight-fold proportion; and by increasing its dimensions in a three-fold pro-