

branches, and we must admit the colleges are to a large extent responsible for this. It has been convenient in drawing up courses of study to group certain departments under one general head and the resulting course, although in part only a general one, has been placed under the only available general term—*civil*. Hence the misconception that civil engineering includes only such departments as are usually comprised under civil engineering in the colleges.

If we would only reflect for a moment we should find that the other departments of the colleges share equally with the "civils" the common ground of civil engineering and are equally entitled to rank with them as graduates in civil engineering. In point of fact the "civils" specialize as railroad, bridge, hydraulic or municipal students, departments which are not usually considered as covering a sufficiently wide ground to call for a special course. It is a matter of convenience only. In practice however the case is quite different, the special branches—several of which have just been named—refer especially to the work which they concern, whereas civil engineering has no such distinctive meaning—it is simply the work of the civilian not of the soldier engineer. If any one or all of you will set yourselves the task of defining civil engineering on the assumption that it is a special branch of the profession, I believe that after mature reflection you will one and all acknowledge failure. Every subdivision which you would include,—such as railroad work, bridge work, hydraulic work, etc., constitutes in itself one of the co-ordinate branches of the profession.

Civil engineering, in its true meaning, must be held to include every department of engineering and the civil engineer to be a man who in *his own department* is qualified to design and direct engineering work, or returning to the Telford definition, abbreviated,—one who has ability to direct power in Nature to the uses of man.

Having, perhaps, unnecessarily dwelt on this matter let us now very briefly consider how the civil engineers stand in relation to other professions in this country, and more particularly how we stand in comparison with our own profession abroad.

I need but say a word on the first point as much has been said upon it elsewhere, and especially as Mr. Sproule referred to it in his address last year. Although it may seem a strange statement to make, it seems to me that in comparison with the legal and medical professions, civil engineering is very young. It is true that we have all, on occasions, heard much of the engineering triumphs of the ancients, but without for one moment attempting to belittle these, I believe that in so far as we to-day are concerned, it may be truly said that the present century, if not indeed the latter half of it, has witnessed the birth and growth of engineering in its most important aspects. Hence it is perhaps not surprising that in so far as America at least, is concerned, there is little or no professional organization or control. The entrance gates are not guarded in any way; and many, without the slightest qualification enter, to the great disparagement of the profession, and loss of the community.