

the arts of dainty expression, or vehement declamation, or cunning dialect in which they had formerly so much delighted, too often to the point of subordinating statesmanship to oratory. "Sir," once said Daniel Webster, bending that terrific brow upon a young man, afterwards one of the most eminent of the Attorney Generals of the United States, "Sir, the curse of this country has been its eloquent men." For myself, I long ago came to believe that, in presenting to the admiration of the American people the living image of a man who could act sublimely but could not make a speech, General Grant rendered a service to his country hardly less valuable than by his exploits in the field.

It was inevitable, therefore, if I have rightly interpreted the changed ideas and the transfigured ideals of American people at the close of the Civil War, that the systems of College instruction should undergo a profound modification. But, in addition to, and in reinforcement of this cause, entered a new force to change the educational system of the United States. That force lay in the dawning of a public recognition of the necessity that the growing enterprises, into which our labor and the capital were to be put, should be organized and directed with more of skill and scientific knowledge than had been applied to our earlier efforts at manufacture and transportation. In the vaster undertakings of the later days, the old, wasteful ways of dealing with materials, the rule-of-thumb methods of construction, the hap-hazard administration, characteristic of our former industrial efforts, could not have been continued without retarding our national development. Although, at the time, this necessity had not reached such a degree of popular appreciation as would, of itself, have created and supported an adequate number of schools organized and equipped to supply that need, it had yet been fully manifested to enlightened statesmen, to the leaders of educational thought, and to many private citizens in whom were fortunately united the means and the disposition to provide what was required.

As early as 1862, Congress, under the leadership of the Honorable Justin S. Morrill, of Vermont, proposed an act for the establishment of "at least one College" of Agriculture and the Mechanic Arts in each State and Territory of the Union; and the close of the War witnessed an astonishing wealth of private benefactions directed upon the same worthy end. How well this class of institutions have, from a purely practical point of view, justified their creation, in the contribution they have made to the development of the national resources, and in the direction given to the national industry, it is not needful to say. On that side has been only success, success triumphant, unchallenged, overwhelming. So fast and so far has this movement proceeded, that the scientific and technical colleges, young as they are, now constitute no small part of the whole collegiate body of the United States; while the older institutions have been compelled profoundly to modify their traditional curriculum, in obedience to the new popular demand. They have flung overboard much of that which was formerly held to be essential to a liberal education; and for it have substituted scientific and even technical instruction to no small degree. And that movement is still in rapid progress. I shall not be greatly surprised, when next I visit the classic shades of Andover, to see a brass plate hung on the outer wall of its renowned Seminary of Theology, bearing the inscription, "Electrical Engineering Taught Here."

Marvellous as has been the growth of the system of scientific and technical colleges, it has not been effected without a degree of reluctance and resistance of which those who have had charge of its fortunes have been acutely conscious. That reluctance, that resistance, have been due to two causes.

First, to social snobbishness in the general community, or to intellectual squeamishness on the part of many who deservedly held high places in the old educational order. I would not speak with unnecessary harshness; but these phrases are