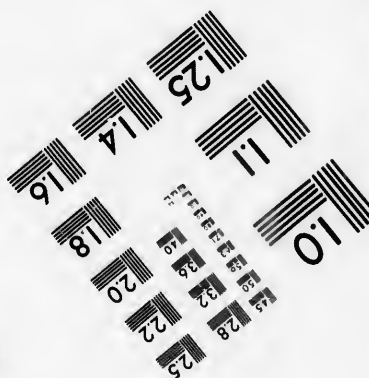
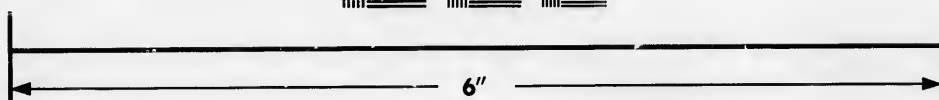
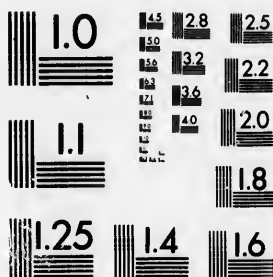


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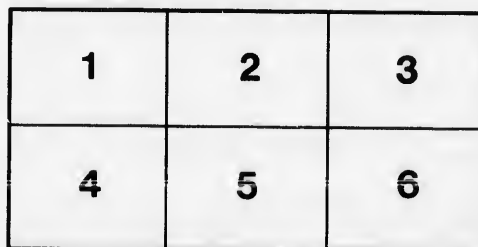
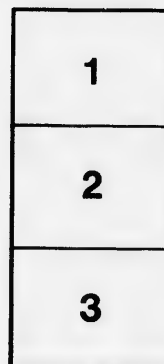
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Canadian Society of Civil Engineers.

INCORPORATED 1887.

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THE PROFESSIONAL STATUS.

A plea for a close Corporation.

By ALAN MACDOUGALL, M. CAN. SOC. C. E.

To be read Friday, 22nd April, 1892.

When Telford founded the Institution of Civil Engineers the future of engineering was being developed in a manner no one at that date could foresee. It has been a happy event in the life of the profession that there was in that day a band of men who were so deeply interested in scientific advancement. Engineering was to enter upon its greatest discoveries, and to those who were members of the profession in that day were to come honors and rewards much more enduring than those earned by them during their honorable and useful careers. To the engineer was soon to be assigned one of the foremost places in science. Among the brilliant names which have distinguished every decade of this century in the world of science, the engineer has been found holding his own place. We are naturally disposed to turn to our "home" land as we think over the great achievements of science, the romance of its long historic existence clings to our imagination, and engaged as we are here, in the very stern battle of the realities of life we forget what has been done on the American Continent. When the world grows a little older, and men have grown richer and can afford to take leisure to study the history of advancement in this century, Canadian and American Engineers will not fail to have places awarded to them as conspicuous as those held by their professional brethren in Britain.

As soon as Stephenson had won his great battle of the Steam Engine, a new life opened to the engineer, which has supplied him for over 60 years with fresh fields of conquest, and new materials and forces of nature to develop and turn to useful purposes. Each step in this forward movement was accompanied by a necessary change in the practice of the profession. The old time system of long apprenticeships, chiefly of a practical character, yielded to shorter terms, and theory gradually came forward, the why and the wherefore had to be found out, the composition of new materials had to be experimented upon and lessons learnt therefrom.

The Institution of Civil Engineers, it is gratifying to remember, kept itself well abreast with the times, and has always opened its doors to the youngest members of the profession. A desire sprung up for better education about 20 years ago, in which the Institution took a prominent part; from the date of its very extensive and valuable research into the question, technical engineering education improved in great strides. Yet in spite of all the improvement there was a great deal of keeping to the old habits; the system of apprenticeships in offices and workshops is almost to-day the recognized path by which the profession is to be entered; the nearly universal idea is, an engineer should be a practical man, higher education does not receive its due merits.

Since the publication, in 1870, by the Institution, of the report on engineering education, a marked improvement has taken place in the morale of the profession, mental qualifications are more

highly valued, a place has been found for a theoretical engineer; men in the rush of daily life unable to keep up the reading of younger days gladly turn to their more theoretical *confrère* from whom they obtain the data on which they base their great achievements, which form many of the marvels of science.

The report, or manual as it might be called, of the Institution on engineering education, did not offer practical suggestions, it was a statement of professional practice in a great many countries, from which one gathered that in France alone, at that day, was there any approach to a close profession, the position of the engineer being somewhat akin to the Provincial Land Surveyor, in so far that he had to obtain government authority to practise. Following on this report, increased activity in engineering education has followed, schools and colleges were founded, existing corporations which had on their foundation chairs of engineering took pains to resuscitate them; in others, they were founded either by the faculty or private benefaction.

In the decade following this publication by the Institution, one noticed the growth of a feeling that something more was required, than the college training or degree of Civil Engineer to be obtained from College or University; the movement never took any more active form than a good deal of newspaper correspondence, which nevertheless has had its effect.

In 1878 the present writer presented an original communication to the Institution of Civil Engineers entitled "The Degree of Civil Engineer," (Foot note, Proc. Inst. C. E., Vol. LV, p. 200,) in which he advanced the arguments he now lays before the CANADIAN SOCIETY OF CIVIL ENGINEERS. The principles he then advocated, he adheres to more strongly as they have been strengthened by the experience of the period which has passed. The dearly cherished hope of seeing the profession in the Dominion, as well as elsewhere, placed in the most honourable position among learned bodies, societies and professions, has been partly realized by the formation of our Society, the success of which is the best evidence of its being required; a further step is required, however; the profession is like a man standing on the brink of a river afraid to take a header into the stream in which his companions are sporting.

British opinion has come up to a certain point, and beyond that it has always been afraid to move. There are certain good conservative rules which govern practice in great George Street, one of which is apprenticeships. The profession has been built upon this system; it is easy to understand that any infringement or proposition for a radical departure would have to be long considered, and fought for step by step. This change is taking place gradually, and almost year by year in every engineering society, the professional status comes up for consideration; men are generally very closely agreed on the necessities, many know in their own hearts what is required and how it can be accomplished, but they are all afraid to mention such a radical subject, or as it were to plunge into the stream towards which they are looking on whose banks they are standing.

During the period 1878-82, the position of the profession created a good deal of interest, an extensive correspondence was carried on in the professional papers in Britain, architects as well as engineers seemed to long for some distinctive recognition. The term of apprenticeship in an office with the addition of architect or civil engineer to the end of the name did not satisfy the desires of the younger men, they hungered after something more practical; frequent expressions can be found in the professional papers of that date suggesting and even calling for examinations of candidates, and the issue of a degree or diploma to carry some professional weight with it. Though the movement was confined to the younger men, it was fairly representative, and cannot have been in vain: an indication of this may be taken by the action of the Institution which began to awaken about this time. In the annual report of the Institution for 1881, (Foot note Proc. Inst. C. E. vol. LXXVIII, p. 10) the admission of students is referred to.

"It has been suggested that only those candidates should be accepted who have received a suitable preliminary education; to be shown either by their having passed certain prescribed examinations at recognized Collegiate institutions to be approved from time to time; or else by presenting themselves for examination by examiners to be appointed by the Council, and passing such examinations satisfactorily. Pending a decision on this point, candidates are now required to furnish satisfactory evidence that they are by education qualified to enjoy the privileges they seek."

A graceful token of continued interest in the welfare of Telford's work, was shewn in 1882, when the widow of Mr. Henry Robinson Palmer, Telford's Chief Assistant and a Vice-President of the Institution, bequeathed a sum of money to found a scholarship at Cambridge tenable by the son of a civil engineer, the holder to be nominated by the Council of the Institution. (Proc. Inst. C. E. vol. LXXI, p. 227.)

From this year (1881) a noticeable change appears in the policy of the Institution, each annual report deals with the question of entrance qualifications of candidates, (which includes students) enforces the necessities of the candidates being well known by the proposers and in every sense "fit and proper" persons to belong to the Institution. The lines are gradually drawn tighter over the entrance of students each year, the entrance requirement is now as nearly matriculation as it can be without examination.

In 1889 a series of "regulations of the Council as to the preliminary education of candidates seeking admission as students" was issued, which sets forth that "on and after the 1st of June of that year students shall produce evidence of "a competent knowledge of the subjects of general education specified in the following list." The list which forms the pamphlet, gives also a list of Universities, public educational establishments which include special preparation for the engineering profession, and public examining bodies and examinations recognized by the Council. The report for that year announces the republication in extended form of the *mémoire* issued in 1870 entitled "The education and status of Civil Engineers in the United Kingdom and foreign countries." (Proc. Inst. C. E., Vol. CII, p. 197).

This list was published in September, 1891, and is extensively circulated; it gives a full list of the various educational bodies in the Empire which the Institution is prepared to recognize, as giving it and proper training to engineering students, quotes at some length from addresses by many of the eminent engineers who have filled the presidential chair and others, from 1865 to 1886; but makes no advance toward encouraging the students to hope for a degree similar to that conferred in law, medicine, arts or theology.

The institution has gone as far as restrictions and all other methods short of actual matriculation or entrance examination can be carried. In 1886 it announces in a foot note, in the annual report of Council, "The use of the simple letters C.E." is expressly discountenanced by the Institution as not founded on any qualification and as being calculated to mislead (Proc. Inst. C.E., Vol. LXXXII, p. 168), and three years afterwards defines its position as follows (Proc. Inst. C.E., Vol. CII., p. 193).

"There is no object in limiting its members, as is the custom in some exclusive bodies; for the institution always "has opened—and it is hoped will always open—its doors to all professional men who have an honest title to be entered on the register; but it refrains from augmenting its numbers by the admission of persons who are merely attracted to it for their own advantage; and the Council above all things, desires to make it understood that membership in the Institution is a real guarantee of professional standing, and (as far as possible) also of the personal character of those on whom it is conferred."

The Institution of Civil Engineers of Ireland, too, has turned its attention to this question. In his annual address as President in 1887, Mr. John Griffiths gives the professional status

a prominent place. (Proc. Inst. C.E., Ireland, Vol. XIX, p. 37 et seq.) He quotes Colonel Burgoyne their first President, who said at their first meeting in 1835

"You are well aware that in spite of the efforts of many able and eminent men the profession has been at a low ebb in Ireland. Persons without education or skill have been frequently employed in operations of importance, and the consequence has been, as might have been anticipated, bad or injudicious works, wasteful or fruitless expenditure. It will be your effort to prevent the recurrence of these evils and you are now adopting the measure best calculated to enable you to do so with effect, by organizing a society for your own improvement."

Mr. Griffiths then continues:

"In Ireland there are special inducements for unqualified persons to call themselves Civil Engineers, and the letters 'C. E.' after a man's name are of themselves sufficient justification for grave suspicion as to professional qualifications. * * *

"It is difficult to understand why a man's qualification for the title of C. E. should not be determined by the profession to which he aspires to belong as in the case of law and medicine. We are too much disposed in this age of competitive examinations to hand over to examining bodies, a function which, I believe, should be administered by the profession itself through some accredited organization of its own. For want of this both our own and the Indian Governments have been obliged to resort to the selection of men for their works by means of examinations, which tend to place these appointments in the hands of inexperienced men, fresh from their colleges, and practically exclude those who are in the practice of their profession. That appears to me an undesirable state of affairs and not conducive to public good or the credit of the profession.

"What I wish particularly to urge is that no such training can take the place of actual experience on works, and that degrees and certificates, however creditable as proofs of a young man's diligence, afford no proof of his capacity as an engineer. Till engaged on work it is impossible to say whether he possesses administrative or constructive ability or those most essential attributes of an engineer, common sense, power of observation and tact in the management of men. I freely admit that most of these are natural gifts, which may be possessed by a young man who has had no practical training, but it is not till he comes in daily contact with actual work and workmen, that it can be proved he does possess them."

Referring to Government appointments, Mr. Griffiths does not think a man should be admitted to examination unless he could show practical professional training, in which case the examinations would be restricted to purely professional subjects, due credit being given for experience on works of magnitude. "With professional men of eminence as examiners, I believe such a course would be productive of much good, and place at their country's service experienced men, in place of the crammed recruit who have to learn their profession, if they ever do learn it, at the expense of the nation."

Mr. L. E. Cooley in his presidential address to the Western Society of Engineers touches up the profession after the following manner,—Eng'ring Record, Vol. XXIII, p. 208:—

"The early engineer of this country was a species of scientific or skilled tramp, with a precarious tenure of position measured by the work in progress. He furnished his employer with the skill of his trade without questioning public policy or the best solution, in other words, the engineer was a tool who assumed his employer to be responsible. The conscientious engineer was always industriously working himself out of a job, was in the position of the man who saws vigorously at the limb on which he sits.

"Much of this character the profession retains to-day, but the growth of professional spirit and the enlightenment of the employer is working a change. The engineer is assuming more the position of counsellor, is more the executive factor in the

conduct of large operations, is retained more as an adviser on the staff of industrial enterprises. All this gives stability, material rewards and independence, gives the engineer a fixed abiding place and makes him a factor in the community in which he lives, enables him to develop the social qualities which he needs and leads to that pre-eminence enjoyed by our profession in older lands.

"What are the duties of the engineer as a citizen, and what is to be his future relation to the machine of civilization?"

"The engineer is a man of too much breadth, is too cosmopolitan to organize anything in the nature of a professional trades union, to go even as far as has the doctor, the preacher or the lawyer; but in his association unwritten laws of ethics will crystallize the profession, will broaden its interests and sympathies, he will become a factor which is recognized for the general good of the community, and with public regard he may achieve those higher ambitions which are for the welfare of the state.

"I regret sometimes that the engineer is not more assertive of his prerogatives among men, and console myself with the reflection that his broad comprehension of "forces and materials," the ever varying phenomena flowing from fixed principles, the inscrutable law which he recognizes behind all, makes him modest, makes him tolerant of the egotism and the petty strifes of men, the arrogance of whose purse-string is the patent of nobility."

ENGINEERING STATUS BY DEGREE.

On this continent where there are many schools of engineering, the graduate seems destined to have scant justice meted out to his talents and mental acquirements. There are many engineers of standing, whose experience ought to enable them to place a fitting value on a properly college trained engineer. Several technical and professional journals have given attention to this subject; one of, if not the most powerful and influential journal, *Engineering News*, had an editorial article headed **PROFESSIONAL DEGREES GRANTED BY COLLEGES**, (Vol. XXII, p. 252, Sept. 14th. 1889). It sets forth its views as follows: "We know of no principle of ethics which makes a lie any more respectable for being solemnly engrossed on parchment and certified to by a President and faculty; and the plain truth of the matter is that the certifying that boys who have been four years at school are "civil engineers," or mechanical engineers," or engineers of mines" or "sanitary engineers" is a lie out of the whole cloth, and known to be such by those who certify to it. If so, it is a demoralizing and injurious practice which ought to be stopped. The excuse for it, is of course, that there is no actual deception; that it is well understood that the degree actually means no more than that its holder has given four years to studying the given profession, and that the same objections hold to the time-honoured "M. D." for physicians.

"But granting the degree to be a proper one for our miscalled 'doctors,' it does not follow that it is a proper one for any kind of engineering students.

"Engineering is a practical profession. The student cannot learn it, by however long study at school, as he can astronomy, surveying, painting, chemistry, or (with sufficient hospital practice) medicine; he must have experience in the actual practice of his profession. Therefore the whole tribe of 'C.E.' degrees are intrinsically and especially improper, failing some years of practice. We hope we shall become in time sufficiently civilized to abolish them."

There is now presented to the reader a consensus of opinion from both worlds,—the old and the new,—which can be accepted as coming from the highest sources, wherein is found a generally expressed belief that the professional status has to be raised out of a quagmire in which it has been found. How to do so is the problem, the solution of which has called forth considerable divergence of opinion and evidenced an unexpressed desire for something the various bodies long for but are afraid to suggest.

The Institution of Civil Engineer, raises its standard by making the entry qualification as rigid as possible; it aims at improving the educational status of its lowest grade (the student) in which very commendable success has been attained, it provides for its youngest members with thoughtful solicitude, by encouraging them to read papers, some of which are sometimes found worthy of being published in its proceedings, and by giving rewards of a substantial nature for original communications prepared by students. Once (in 1881) it suggested that students should be examined by examiners appointed by the Council, before being admitted; the revolutionary principle embodied in such a proposal seems to have frightened their conservative ideas; it is abandoned, no further reference is made to it. Some years after a little soft soap thrown out to the profession, in a flattering form of words; the Institution opens its doors to all who are honestly entitled to be entered on the register, it refrains from augmenting its membership list by admitting persons who desire to belong to it for their own advantage, and above all things "desires to make it understood that membership in the Institution is a real guarantee of professional standing, and (as far as possible) also of the personal character of those on whom it is conferred."

The president of the Irish Society of Civil Engineers in his address, leads one to hope he favoured the mental culture of the engineer; however, he fails lamentably, and sinks into the everlasting slough of the "Practical engineer." "Practical" let him be by all means, but "practical" he must be, only through the door of thorough education, his foundation must be thorough theoretical knowledge of his subject, his structure practice, and the bond experience.

The president of the Western Society of Civil Engineers hits the nail straight on the head, he need not have said "the *early engineer* was a species of scientific or skilled tramp," he could easily have applied the expression to the present day. His opening is charming, the whole address well worth study, the conclusion a very neatly turned compliment, his argument can be summed up by using some of his own words "too much breadth and too cosmopolitan." There is too much of the "tramp" about this writer, cosmopolitanism is a very good quality but it lacks nation. Professional union has nothing of the trades union about it. Closer union will have a healthy lasting effect on the profession. It is the extreme breadth and cosmopolitan character of the men engaged in the profession which makes us a set of tramps. There is hardly an engineer in the Dominion who will not rush into print, gladly, to give professional advice, or impart for nothing, with a little judicious self advertising, opinions which ought to be paid for. The public know this thoroughly and make good use of it. The expression "professional tramp" is one which suits the situation admirably.

The Professional journal quoted mildly sneers throughout its whole article at the assumption of a degree by any man and especially by an engineer. It is not necessary to follow the article through the whole of the argument, it concludes by saying "engineering is a practical profession" that the "student must have experience in the actual practice of his profession" and that "C. E. degrees are intrinsically and especially improper failing some years of practice." How absurd it is for men who are themselves university men, who owe their position to their higher education, to write in the above strain; when they commenced their editorial career, were they any less entitled to be called "editors" because they had not had many years of experience?

So long as the designation "C. E." is derived from college, and the holder bases all his claims and rights to that alone, neglecting to extend his experience by practice, then the degree is "especially improper." In what place can one find such a young man, what is the universal experience? Is it not that the degree is the greatest incentive to acquirement of practical knowledge? The present writer knows not of a single case in which the college bred lad has failed to follow up theory by practice, and

in his experience the graduate picks up his practical knowledge quicker and in more practical form than the merely "practical engineer."

PROFESSIONAL APATHY.

The whole aim of technical education has been missed by the profession, those who were in a position to recognize its advantages appear to have deliberately blinded themselves to it in the early days; a prejudice has been formed which gives a direct contradiction in practical life, to all the written and published expressions of interest in the advancement of education and technical lines.

There is a remarkable conflict at present, between the public and the profession. The former recognise the necessity of improved education; in the most open handed manner, by public and private benefactions, engineering education is being advanced; the profession accepts all the gifts given to it, and places the best men obtainable in these chairs, and then fails in its duty. It affects to be deeply sensible of the advantages conferred on its younger members through this generous action of the public, takes all it can get, and sedulously avoids giving any return. When it is asked to accept the college graduate, to extend the right hand of fellowship to him and admit him into the sphere in which his life should now be cast, the profession drops him, because he has had "no practical experience," and sinks into its depressingly lethargic condition of admiration and demand for the "Practical man." What ever may have been the triumphs of the profession in other lines, its recognition of the higher education of its younger members, cannot be classed among.

The present *laissez aller* condition cannot exist much longer, the public will waken up to their rights and will demand of the profession a suitable acknowledgment of their services and interest; large sums have been expended in endowing and equipping schools of engineering by the governments of the Dominion and the several provinces and private benefactions. The graduates of these are a credit to the institutions from which they emerge, the writer cheerfully bears testimony to his appreciation of the training given at some of the colleges, the young men he has employed have all turned out well. The courses of instruction are being enlarged, the magnificent benefactions of one gentleman will soon place in Montreal one of the most fully and perfectly equipped engineering schools and laboratories to be found anywhere.

RESPONSIBILITY OF THE PROFESSION.

The fruits of all of these colleges—graduates—have to be acknowledged somewhere, the fit place is in the profession, the proper mode is by a society of men in that profession, who being incorporated and legally chartered, have conferred on them, the necessary powers to carry on these graduates by making them conform to certain standards, which would place them at given gradations in the Society, each of which would be equivalent to a degree, and have a commercial value. The degree thus obtained would be the "practical" evidence the profession is groping for. If anybody will calmly consider the future of engineering, with a view to making a forecast of probabilities, he will soon convince himself that the engineer of the future will be altogether a thinking man; rule of thumb is being rapidly banished, the new forces we are called upon to deal with, require the highest mental culture and education; these will go hand in hand with observation, and in spite of his "degree" the engineer of the next generation will in no sense fall short of his progenitors as a PRACTICAL MAN.

The writer formed his opinions about the ultimate aim of all engineering societies, 15 years ago, he has not had occasion to change them; the unexpressed desire, one may almost say—will, of the profession is towards higher attainments in its members, and the recognition of them by a properly constituted professional body. Universities and colleges may grant degrees in

arts, medicine or law, the holder of a degree obtains no professional advantage until he is admitted to professional standing by a corporate body, duly qualified and entitled to do so. The feeling has grown rapidly in the Dominion in the last five years that professional standing must be recognized and a qualification obtained whereby a man's standing can be established. The architects of the Provinces of Quebec and Ontario have organized, in British Columbia a movement for organization is on foot; the Provincial Land Surveyors of the Province of Ontario have had increased power granted to them by legislation and they are now endeavouring to get a charter to enable them as a body to license their practitioners, instead of being licensed by the Government.

The formation of a close profession will not be injurious to the engineering interests, or to the public. It is not yet 25 years since the medical profession in the Province of Ontario, obtained a charter; no injury has arisen to the public from the formation of this into a profession, it would take only a few minutes to satisfy any sceptic that the movement has been of the greatest benefit to everybody. The several provinces have each their law societies, they are all close corporations. Who ever heard of importing leading counsel from the United States to plead a cause in any Canadian court, who has suffered in any way from this arrangement? Can anyone say that the cause of justice is badly served because the members of the Canadian bar do not practice in the United States courts? Does public health suffer because American physicians do not have branch offices in Canada? Who can say that these distinctive cordons have provoked bad feeling between the respective professions in each of these two countries? On the contrary we know that the very best and friendly relations exist between these professions. The formation of these professions into such close corporations has been attended with the very best results to every one, of inestimable benefit in elevating the morale of the practitioners, the movement has resulted in incalculable benefit to the public.

DEUTY OF THE SOCIETY.

It lies fairly within the limits of the CANADIAN SOCIETY OF CIVIL ENGINEERS to consider what obligations fall upon it in connection with the future of the younger members. It is abundantly proved from the foregoing argument that the weight of opinion is against the bare degree, which granted by a college or university confers no acknowledged professional standing. The writer looks on this as a matter of regret, the possession of a degree is evidence of education and training in special lines of knowledge. The medical student obtains his right of entry into his profession through his degree, to obtain which, he has passed the required standards laid down by the corporation or corporate body into which he is to be admitted; the examinations to which he has been subjected being conducted by that body. His value as a practitioner rests upon himself as taught in the school of experience. The same course applies to the young engineer, the majority of the profession look with kindly feelings on the graduate, the day is passed in which he is classed as a nincompoop, and his theoretical training discounted.

There are now so many schools of engineering in the Dominion supported out of public and private funds, it will soon be incumbent on the profession to take cognizance of their work, and declare in a more marked manner than has yet been attempted that the degrees of these schools under certain conditions give the holder the full qualified entry into the profession through the door of the CANADIAN SOCIETY OF CIVIL ENGINEERS.

Why delay any longer in acknowledging the fitness of thorough education as the bases of engineering proficiency? Hold out the right hand of friendship to the student and tell him that the gateway of his future life is open to him by the diplomas of the Canadian Society of Civil Engineers, granted to him after he has passed such standards and appeared before such examiners as the Society shall determine.

This proposition may startle the average mind, there will be plenty of objection taken, and numbers of critics on all sides will proclaim that the Society has nothing to do with education — as the Institution told the writer. It was not an educational body — to all of which the writer has only one answer, the whole drift of our Society and all engineering Societies is educational. We write papers, we discuss, the whole object is mental improvement.

The Society has given evidence of its interest in our younger members, by admitting them to the recognized grade or standing, and gives further proof of interest by asking them to hold students' meetings and read papers, some of which, have already been found worthy of a place in our proceedings.

The Society need have no fear of its standing being affected, if it assumes the position and powers of such bodies as the medical or legal profession, or the Church. None of these suffer from granting degrees. A remarkable demonstration of the writer's argument is the feeling which will shortly show itself among the land surveyors of Ontario, to take the whole control of their profession into their own hands. A charter to this effect is now (February 1892) before the Local Legislature of that Province.

UNDIGNIFIED TACTICS.

The writer has good grounds for saying that there is a strong feeling in the profession, for closer union, if a poll were tried the favourable expression of opinion would be surprising. Nothing can be more unsatisfactory than the present professional status, in no class of men calling themselves a profession of learned men is there so little of self-respect, dignity and entente cordiale. Physicians are generally credited with having less brotherly love towards each other than in any other profession; still with it all one member does not try to cut into his neighbour's practice, take patients away from him or offer to perform operations at a lower rate. Barristers or solicitors do not fight for clients nor do Counsel tender to take briefs for the pleasure of cutting out a neighbour. What does the engineer do? Who can deny that there is about as much wire pulling and log rolling among engineers as among the vendors of patent articles; corporations all know it and make full use of it; they either make engineers bid directly against each other, get advice for nothing through the public press or set them to work directly and indirectly to cut down each other's fees. As the profession stands to-day, it is almost a trade; men advertise themselves either in the public press, or by circular, or by flooding the country with copies of every report they write, they have themselves interviewed and described as "eminent," "well known," "experts," &c., and yet condescend to practices to which these very words reprobate. The Institution of Civil Engineers says that "membership in the Institution is a real guarantee of professional standing and (so far as possible) also of the personal character of those on whom it is conferred," membership in our Society also, as well as the kindred one in the United States, should be taken to have a like influence and value which should exert a much more elevating tone and effect on the members than it appears to do.

The profession in the British Empire is certainly influenced by the Institution, membership in it carries weight all over the Empire and on the Continent of Europe. The writer notices with satisfaction that of late years Canadian engineers have felt the benefit of connection with the Institution. Next to the Institution, the American Society has claimed and still attracts many Canadian Engineers; the qualifications for this Society are of such an order as to give its members a standing similar to that of the Institution. The effect of membership in one or both of these societies has not had the improving and high moral tone on the Canadian members it seems to have on members resident in the United States and elsewhere, so far as the writer's experience extends. There is too much advertising, puffing, still hunting and conduct which connection with one of these societies alone should lead a man to abhor, how much more then

should his self respect rise if he belongs to more than one? The medical profession in Ontario set a very good example when they wisely and properly decided against advertising; they do not even allow the insertion of a professional card in any newspaper.

In the legal profession, the system of advertising exists to a limited extent, chiefly in the form of professional cards. In the practice of both these professions, one finds no tenders asked for surgical operations or family practice, nor do learned Counsel cut fees or swagger over their cases won.

The Canadian Society of Civil Engineers has had a remarkable record since its organization; it is making itself felt in the land; membership in it is being acknowledged as the rank of an engineer's standing; the outside world has given it a place among learned bodies; it now lies with the members to extend that influence, and to raise the tone of the profession to the standard it is entitled to as the foremost of all the learned and scientific professions in the world.

