

Digest :-

Could this be You ?

an address delivered to the 1965 conference of the Consultants Division of the
N. Z. Institution of Engineers.

G. BURNS

C. M. G.

I am going to try to put before you some aspects of yourselves as seen by some one completely distant from your profession.

First of all, you may be likened to a phrase used recently by the Prime Minister although not originated by him, the "faceless'ones." I say that because, compared with members of other professions, you have failed, whether deliberately or not I do not know, to become widely known outside your own colleagues and organisation.

Recently I had a look at the membership of your group and tried to analyse its composition and its place in modern society. It seems that you may be divided into roughly three divisions. There are those who (a) spend most of their time as consultants to the smaller local bodies or who accept commissions from local bodies whose staff are insufficient to handle extraordinary work. Then there are (b) those who have specialised in the services field—the handmaidens of people in other professions who must, of necessity, obtain and use your professional knowledge to complete their own tasks. And (c) there is the group who seem to concentrate on the construction field, who are still among the "faceless ones" even if their names do appear on the hoardings of newly-built structures as part of the supporting cast.

I believe I am right if I described you as a courageous group, because each and every one of you has had the courage to enter the field of private enterprise. Most people in your profession in New Zealand are employed either by the central government or by local authorities. Let no one gainsay the value of their work, but it stands to reason that employment of that nature ensures security of income and removes any sense of urgency about the quite important subject of bread and butter. I know that some of you—probably the majority—have at one time or another been in public employment. To

leave an assured income and regular hours of work involves risks. You have faced those risks and launched yourselves into the world of competitive business knowing full well that you have to stand on your own feet. In other words, you have abandoned security. Thank goodness for that, for the besetting sin of this country is the doctrine of security from the cradle to the grave.

There are some who need that security; there are also the bolder and more adventurous people who are the creators of new thinking and new achievements. With them security comes second.

Now you have gathered to discuss professional matters and, I imagine, your own organisation. I do hope that you will give some thought to the place you occupy in the community. Here is where a layman, such as myself, can have a say. Our horizons are expanding at a speed that is truly astronomical. It was said recently by an eminent authority that all the scientific knowledge known to the world in the year 1900 had doubled by 1950, by 1960 it had doubled again, and in the next four years, to the end of 1964 it had doubled again. That calculation realms on the borders of phantasy, but I see no reason to believe that it is wrong. And in every one of these advances, somewhere in the background lies the brains, the ingenuity and the inventiveness of the engineers. This terrific escalation of knowledge brings with it its many perils, not the least of which is the need for more and yet more specialisation in fields that grow ever narrower. Men start to live mentally, apart, wrapped up in problems that dominate their lives. The professional man—and this includes all of you—tends to become something of an African "medicine man". He is the possessor of strange and wonderful secrets which can be communicated to few and to those in a new language, making him more and more remote from the rest of the world, and indeed, in some professions, from other sections who follow the same vocation. Here lies peril. It may be that the reason the consulting engineer in New Zealand is rarely known to the outside world lies in this realm of specialisation.

Yours is an art as well as a science. More than a century ago a great English engineer, Tredgold, wrote: "Engineering is the art of the direction of the great sources of power for the use and convenience of man". Now, that is something that is comprehensive, and although Tredgold could not, even in his widest dreams, have envisaged the tremendous developments of the next 120 years, his definition stands today as soundly as when he devised it at the request of the Institution of Civil Engineers.

The aspect of the definition upon which I would like you to contemplate is the use of the term "art". Almost universally to day, engineering is looked upon as one of the sciences. Yet it is more—much more—than that. It is an art. As such it calls not only to the person who might have a profound ability to obtain qualifications, it calls

also for the person with imagination, with sense in the broadest way, of aesthetics and more important still, with a sense of not only what is good for the immediate matter in hand, but what is good for the whole community.

In other fields art and science have come together. In your own, some of the greatest engineers have been true artists. It may be that here in this gathering tonight, there are many whose sense of art is equal to, or even greater than, their professional attainments. But if that is so, in this community at any rate, they have been modest—so much so that others have had the credit that may rightly be due to them. Perhaps this gives you a clue to what I meant when I spoke of the "faceless ones". There may be a historical reason for the present situation, those who have been earlier in governmental or local body service had, as part of the discipline of that type of work, to remain behind the scenes. In many instances they were not allowed to make their views known to any except their branch or committee. And there are good enough reasons for that attitude in some fields of employment.

But when, as men of courage, you have decided to stand on your own feet, you seem to me to be at an intermediate stage. As consultants you are independent. Your advice is sought by your clients and given to them. All perfectly proper, you say, and one must agree. But have you gone far enough? How many of you, as artists and as engineers, have made a contribution to the life the community in which you live! How many of you, with a wealth of experience at the back of you, have openly expressed an opinion on the great issue of the day!

Some have, but in my experience, not very many. Surely your hard professional course of training, plus your ever-widening experience, has given you the right to make a worth while contribution to the community. People in other professions have done it. The community has received great benefits, and so have the members of those professions. They have created in the public mind a view that these are the people of whom notice should be taken. They are right.

In the case of some professions—and I would be bold enough to say that this applies to some aspects of yours—the peril of specialisation that I spoke of earlier is shown here. Experts become so immersed in their own fields that they lose the ability to communicate to the public. Their new "language" with its narrow and specialised meanings cannot tell the world in plain Anglo-Saxon what the world should be told.

Your immediate reaction, probably, is that this is your affair, and has nothing to do with me or the general public. Yet, if that is your view, you must remain "faceless" forever, and let other people run the community for you. Then you run the risk of being too late if you want to take your proper place among your own people,

It may be also that because of this specialisation there is an absence of ability to pass the message on. In fact, there is some evidence in the works of some students of this. Could not the answer lie in the extension of the degree prescription to require a higher knowledge of our own language ! In other parts of the world useful work is being carried out at the university level in persuading those who are preparing for the professional fields to take units in the humanities. This is aimed in two directions, The first is to give a breadth of vision—the very function for which a university exists—and the second is to overcome the barrenness that may develop in the field of communication—the shortcomings in passing on information and opinion to others outside the chosen profession. Sooner or later some remedy will have to be found, and the development of some system of cross units would seem to be one way of meeting it. There may be others, and if there are all, should be given the most careful examination.

I do not know your views of this subject , it is possible that I am speaking to the converted. If I am not I suggest that one of your expert committee delve into the subject.

Everyone in your profession can make a contribution to a better way of life. In fact, all of you do but as I have tried to suggest, most of you do anonymously and let others get the credit—if there is credit to be gained. Likewise, people with your capacity and experience and ability can have an enormous effect on public thinking. I do know of one or two of you who are making worthwhile contributions, but I suggest, quite seriously, that not enough of you are in fact doing so.

Public life may not bring much in the way of financial rewards, you are more likely to be damned than parised—but just as we can recall the old adage about constant dripping wearing away the stone, so the infusion of clear, independent thinking into our public life can create public thinking that will, in the long run demand and achieve the results you have desired.

To reiterate, this country of ours needs among its leaders men with the highest professional attainments, but who also have the power to communicate with the mass of the people. The two do not go, in the present order of things, hand in hand. But, like every other problem that faces us, a solution must be found and you are the people who can at least make an attempt to do so.

N. Z, Engineering—September 15, 1966

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Secretary