

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

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Mr. L. F. Hickernell
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Dear Hick:

You and I have had thirty years of common experiences behind us and so often have achieved independently a common aim and viewpoint that it worries me when we diverge. I expect and welcome minor differences (IRE STUDENT QUARTERLY for instance; I give up on that one although I still think I'm right!); but when we come to a major one, I feel I owe our mutual relationship the duty of openly dissecting the difference. May I try, quite openly, to convert you to a point of view of mine?

A paragraph in your recent letter to Nelson on Resignations disturbs me!

"... Personally I think some of our engineer brothers have an inflated value of their contributions to our modern civilization. Dimmed by antiquity, most folks give Edison all the credit for our modern electrical world based upon his having designed and built the first central station and distribution system. But how would Edison ever have done this, if J. P. Morgan (or someone like him) had not financed Edison's experiments and trial installation? ..."
Etc.

While I hold no particular brief for Edison as a specific individual, I do think that the engineer-scientist-inventor type of person has contributed immeasurably more to the present development of what is usually called "our western civilization" than any other one segment of intellectual leadership. Why not phrase your question "How would Morgan ever have done this, if Edison (or someone like him) had not engineered it?"

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You go on to say that our high standard of living is due to a proper blend of finance (management), engineering, production, and sales. This of course is not subject to argument, but I'd like to take out of the statement the inference that engineering is just a minor one of many things that go into our common effort. Isn't it the major one at this moment (300 years) of history?

I have read widely the past few years and it seems to me self-evident that we have really achieved a kind of conquest of nature for the first time. Fortune calls it "over the hump." This drive has been entirely dependent on technology. For thousands of years we have had popes and potentates, kings and tycoons. Even scribes and accountants and possibly salesmen. Engineers were there too, probably antedating the priests and the witch-doctors. But it was not until what Finch calls the wedding of science and engineering a few hundred years ago that we really started to roll.

Bertrand Russell says that science is to know, and that engineering is to know how to do. When in the last few hundred years we developed the group of devoted people who by constant and comparative experiment and discussion in their learned societies were able to determine the nature of our physical world and how to do something about it, did we not pull mankind up from the mud in which it had been floundering since Abraham? Conant says a course in cultural history might be of value in the education of future scientists and engineers. I think it would be better than that,--it would show them what they are doing in a very flattering perspective.

Now let's get personal (Not Hickernell - Heaven personal by the way!). Who remembers the name of the Pope who cracked down on Galileo? Are there any of those 17th Century people that are as important to us as Boyle? Galvani? Newton? Or to come to people we both know and have worked with, among which group would you find people of most "importance" to our present development--Insull, Foshay, Fitken, or Steinmetz, Fortescue, Pupin? Of course we might be biased in knowing the engineers better. But Foshay and Martin Insull were on my old Inductive Coordination Committee; and, while I had respect for their mental ability, it would never occur to me to say they were of great importance to the community.

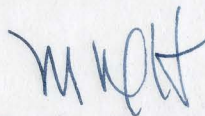
Mr. L. F. Hickernell

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I always hesitate to attempt the conversion of a Pennsylvania Dutchman because his inborn reaction is to set his feet and push back. But please give this importance-of-the-engineer thing more thought, won't you? Thanks if you will.

Yours very truly,



M. D. Hoover

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