

# The Future of the Young Engineer

By W. Reavell, M.I.M.E., M.I.N.A.

We print this month the conclusion of an address recently given at the Portsmouth Municipal College. This address is of general interest to our readers as its author is the Vice-President of the Institute of Mechanical Engineers, and Managing Director of a large engineering firm in Ipswich.

(Continued from last month)

THERE is another field to which it is opportune to refer, and that is the field of Technical Engineering Salesmanship. Here England has been neglectful, and she must alter. In days gone by, when England was pre-eminent, and indeed almost alone in Engineering development, machines were constructed and the purchaser had to come to the manufacturer to get them. To-day, it is an exploded doctrine that orders will come to the manufacturer, and it is an equally exploded doctrine that 'anyone can sell.' The salesman of old times was referred to somewhat contemptuously as "the Drummer."

I remember well how this important question of Salesmanship was brought home to me many years ago, when I first started in business. I had visited America to look into the latest types of Machine Tools in use there, and, when purchasing our own machinery, I was struck with the difference between the type of English salesman and those who represent American firms. I remember particularly the representative of an American firm then well-known in the manufacture of semi-automatic machines. He was a skilled, trained Engineer, of good presence and address. He was able to examine the work to be done, to calculate and guarantee the time in which each piece of work could be performed, and to set the machine up when delivered. He could, by actual demonstration, prove that the times he had stated for the work could easily be accomplished.

Even at that time America selected for her salesmen the best trained and best equipped men from her Works. In Britain we have largely adopted this practice to-day, but I am convinced we must do more. It may fall to the lot of some of you, after your College training, to be associated with modern firms in this capacity. It is a false notion to think that it is beneath the dignity of a College trained man to devote himself to the selling of specialised products.

I recall well, as a young draughtsman who had already specialised in a particular branch of Marine Engineering, my feelings on receiving from my chief a request to go and interview a client who was considering the purchase of one of these machines. My feeling was that I had trained myself to design and construct, and not to sell. I remember well the terse views expressed by my Chief as he pointed out that a machine was of no value until it was put to work, and that a trained Engineer was, in his opinion, the most fitting man (given the other necessary qualifications) to present to a possible purchaser in the best way the merits of the machine he had designed and made.

I think that there is ample scope for a new branch amongst Engineers, the members of which would be called

"Commercial Engineers." It would be an enormous help to the development of British Engineering if it could be realised that her best men could with advantage be employed as Technical Trade Missionaries. I picture the time when an Employer or

## Young Engineers of Japan



We are pleased to be able to publish this photograph of Kenichi Sakurai and his brother, both keen Meccano boys who live in Nakayamate-dori, Japan. An account of these young engineers' model-building was given in our August number. The brothers send their New Year greetings to "all the other young engineers in the Meccano Magazine."

purchaser, instead of refusing to see the old time "Drummer," will welcome the new Commercial Engineer and will discuss his immediate problems with him. The Commercial Engineer will show him, from his special knowledge, the best way to overcome his difficulties. He will calculate for him the expected efficiency of the machine proposed and its power costs; will sketch out the best installation of the plant, and be capable of giving him experienced hints in running the machine. He may then be able to prove to the purchaser that the possibly cheaper machine of his rival is not the best one to select.

For any of you who take up this branch of work, there are some rules to observe. The first I would make that of absolute straightness. Never claim what you cannot perform, and never make statements that you cannot prove. It is better to be called straight than great, but the best way to become great is by being straight.

Another is:—Do not waste time. One of my youthful memories is of a motto in the office of a man on whom I called. The motto was—

Call upon a man of business  
At his place of business,  
And in business hours.  
First, transact your business,  
Then go about your business,  
That he may finish his business.

A third is:—Do not despise your competitors, whether at home or abroad. Learn all you can of their products, and thoroughly grasp the essential features of novelty or economy on which they rely.

If this imperfectly sketched picture of the openings for the young trained Engineer encourages you, may I presume upon my short acquaintance with you all and exercise an older man's privilege of giving you a closing word of advice. It is of course trite to say that "Genius is an infinite capacity for taking pains," but a deal of truth lies behind it, for at the end it is "Work" that tells. Do not be afraid of work. On this subject Mr. J. L. Garvin recently wrote—"Many years ago it was when Cyril Jackson, the great Dean of Christchurch, nearly at the end of a long life, gave Peel, a brilliant undergraduate about to begin his political career, the following advice: 'Work very hard and unremittingly. Work, as I used to say sometimes, like a tiger, or like a dragon, if dragons work harder than tigers. Don't be afraid of killing yourself; only retain, which is essential, your former temperance and exercise, and your aversion to mere lounge, and then you will have abundant time both for hard work and company.' If Christchurch had handed down nothing but this letter it would have handed down much. When was the strict truth about life more ruthlessly told? They are great words, as great as ever came out of Oxford. Advice is too weak a description of them. They are marching orders given to Peel and to any other man worthy to be given them. They were delivered over a century ago. They hold good for all centuries."

I would not assert that to-day work is shirked and sport is paramount, but I am not so sure that the value of work for its own sake, in the building of character and the promotion of happiness, is thoroughly appreciated or understood.

A reference to Smiles' "Self-Help" to-day is apt to provoke smiles, and to refer to Longfellow may be unpopular. Nevertheless I believe that that great poet's views on the reasons for success are as true to-day as when he wrote:—

(Continued on page 127)