

# Inauguration of Bombay Branch

## Presidential Address

By W BURT

GENTLEMEN,

We are gathered here today to be witnesses of a historic occasion—that of the Inauguration of the Bombay Branch of The Indian Institute of Welding. At last, the engineers, technologists and scientists of this great region have united to propagate, learn and assist the science and technology of welding.

In modern life today, welding has a unique and all important part to play in the building of our industrial economy. We are wedded to the creation of a better standard of living by the creation of an industrial economy, in which we, as welding engineers, are aware of the vital, yet in many ways unobtrusive, role which welding has to play. All aspects of our daily life are dependent at some point on welding—whether it is the creation of warships as is done near to where we sit or a minute component of a radio : The small and the large, the weak and the strong, are creations which need ones skills and knowledge of welding.

This region of Bombay, with its vital energy flowing into the creation of unaccountable engineering products, needs a source which can provide experience, information and assistance to engineering units on welding science and technique. The Bombay Branch, which we are formally inaugurating today, will surely provide this service.

Welding is generally and correctly understood to be a means of forming and fabricating various material structures ; new techniques of welding are judged for their worth on the touch stone of the shop floor and on construction sites. The rapid progress achieved during the last decade in welding technology may have caused us to reflect that new processes would have been slower

to appeal. This fortunately is not the situation as welding science has continued to advance. We are aware of the progress being made in high performance hot wire tig methods of metal deposition which has shown that metal deposition rates can be increased by as much as three to five times the normal method. This development will find ready acceptance in pipe, pressure vessel, tank and boiler construction.

Another innovation which I consider an exciting prospect is the work which is being done on flux cored welding wire which requires no gas shielding. Such wire when used with semi or fully automatic welding systems may well cause a radical change to our present gas shielded methods.

There are many other innovations in the field of welding as we strive to make the science and technology of welding equal to the demands of designers and circumstances. For example, to meet requirements of high heat resistance with good strength to weight ratio or excellent impact strength combined with tough wear resistance, creation of composites by means of explosive welding has been resorted to.

I have touched only a few of the many advances in welding technology which are taking place in the world today ; but we here are more concerned, naturally at what is happening in India today. The great mass of medium sized industry await the arrival of semi and fully automatic welding equipment. It is by means such as the introduction of better welding equipment that costs of production can be reduced and a demand stimulated for more products, which, in turn, will lead to more employment, which, as we all know, is a problem which must be solved for the good of the country today.

The increasing complexity of plants and the demand for materials to meet critical working conditions necessitates, besides the higher standard of welding craftsmanship, the assurance that the work is being done to the required standards.

In the search for quality, the fabricator has to face the ever present problem of obtaining sound, uniform quality steel plates, sections bars and whatever other material he requires. The welder, no matter what his skill, can never produce the best work unless his material is sound. In the conditions prevailing today, the shortage of mild steel products must make us ever vigilant for materials which, under the pressure of reaching the producers "Rated Capacity", are below ISI Standards and can be sold in the market without much trouble.

Quality checking equipment and instruments for non-destructive testing such as ultrasonics are still required to be produced in quantity, indigenously. Where indigenous manufacture is unable to meet specific needs for such testing equipment, I am afraid, import must be resorted to, to enable the industry to raise its quality standard to the demands of sophisticated requirements. Such applications must be speedily processed and not subject to delay, which, in some cases, are over two years.

I have emphasised on a number of occasions the shortfall of Argon Gas production. I consider the situation so serious that it will bear repeating until supply meets demand. During the year Argon Gas became so short that units using sophisticated processes of welding which employed Argon Gas were put to considerable distress. The Government has recognised the seriousness of the situation and set up a task force to study industrial gas manufacture and make recommendations. The task force has now made its report and it is to be hoped that immediate action will be taken to improve and eventually resolve the shortage.

Now I must say a few words to the members of Bombay Branch.

You, at this precise moment, must clearly know the objects of the Institute, which are :

- (1) To promote the advancement of the science and practice of welding.
- (2) To enable all persons engaged in welding and allied industries to meet and to correspond and to facilitate the exchange of ideas with respect to the science and practice of welding.

- (3) To promote and organise research in all matters relating to the science and practice of welding and cutting.

These are simple yet wide ranging objectives. To achieve and practice these objectives consistently well, I know, tax your forbearance, ingenuity, resourcefulness and ability. While it will be primarily in the hands of your Committee to provide the opportunities, it will also be the responsibility of each member of the Branch to ensure the Bombay Branch maintains the requisite high standard of practice in and towards the Institute's objectives.

Guard your membership. It is not numbers which count, but quality. This is a professional institute and its image will be valued and gauged by the outside world by the actions and quality of you, the Members. If this is to be a professional institute worthwhile belonging to, it must have members of calibre and integrity.

As I have said, we are a young institute with the advantages and freedom of youth but, perhaps, with the hazards of the young also.

We have not yet had time to develop the practices and courtesies which age to traditions and become part of the carefully guarded history of institutions.

Being young, we can see the mistakes and pitfalls of other bodies and by careful and diligent attention avoid such harmful effects to the immediate and long term benefit of our own welding Institute.

We must be ever watchful of the dignity of our profession as Members of The Indian Institute of Welding.

We are the men who are laying the real foundations of the Institute. Let us be worthy of our destiny so that when history looks back on our period here it will record that "They did well".

Always bear a thought that your Committee are men who, amid the demands and pressures of earning their daily bread, give freely of their time to conduct the affairs of your branch.

Our Institute is growing and stretching its activities over the length and breadth of India with commendable rapidity. There are bound to arise occasions when ideas and action differ from our own particular sensibilities. These then will be demanding moments of forbearance and, in the ultimate, greatness for our Institute and the dignity of our profession.