

had commenced and in a number of years we might expect to have the pleasure of using a comfortable bridge for crossing the River.

(5) The foundation stone of the "Anderson Bridge" over the Damodar had recently been laid by H. E. Sir John Anderson, Governor of Bengal, at Sadar Ghat. It would be the largest Road Bridge in Bengal and, what was greatly interesting, it would be the longest Reinforced-Concrete Bridge in India.

He thanked all for asking him to preside.

Essay Competition

One of the largest awards ever set up for competition in the scientific field has just been announced by the James F. Lincoln Arc Welding Foundation, with headquarters in Cleveland, Ohio, U. S. A.

The competition calls for papers by engineers, technicians, designers and skilled workers who are familiar with the uses of arc welding.

A total of \$200,000 will be given in prizes; and there are 446 awards which may be won.

The principal prize winner will receive not less than \$13,700 for his paper on the application of arc welding to the design of some machine, structure or large building.

Other individual prizes range from \$7,500 to \$100—the latter sum be 178 contestants who failed to receive a larger prize but whose papers were judged worthy of "honorable mention."

In order to give every person an equal opportunity to win a prize, similar awards are offered for winners in each of the eleven divisions of industry covered by the contest. These divisions are: Automotive, Aircraft, Railroad, Watercraft, Structural, Furniture and Fixtures, Commercial Welding, Containers, Welderies, Functional Machinery and Industrial Machinery.

Wide diversification of awards is effected by further dividing each major industry into various sub-classifications; with entrants required to select in advance the particular sub-classification to which their papers will relate.

When accepted by the Jury of Awards as properly classified, each paper will be in competition, in its particular sub-classification, for five

initial prizes established for that group. These are worth, respectively, \$700, \$500, \$300, \$200, and \$150.

From among these sub-classification winners, four papers will be selected in each major industry to receive additional prizes of \$3,000, \$2,000, \$1,000 and \$800. Thus these 44 semi-finalists will be awarded a total of \$74,800.

In addition, the semi-final winners in the various divisions will be considered as possible recipients of the four Main Prizes. These range from \$10,000 to \$3,500, with the winner of the Grand Prize receiving not less than \$13,700 for his paper.

Analysis of the complete prize offering shows the following:

1. In the **Automotive** field, twenty-four prizes with a total value of \$14,200. These to be awarded papers submitted under four subclassifications; namely, **Engines, Bodies, Frames and Trailers.**
2. In the **Aircraft** field, fourteen prizes with a total value of \$10,500. Sub-classifications for the Aircraft industry are two; namely, **Engines and Fuselage.**
3. In the **Railroad** field, twenty-four prizes with a total value of \$14,200. Four sub-classifications are made of the Railroad industry; namely, **Locomotives, Freight Cars, Passenger Cars and Locomotive and Car Parts.**
4. In the field of **Watercraft**, fourteen prizes with a value of \$10,500 are established. Sub-classifications in this division of industry are two; **Commercial and Pleasure.**
5. In the **Structural** field, twenty-four prizes are offered; with a total value of \$14,200. Four sub-classifications are established in this division; namely, **Buildings, Houses and Miscellaneous.**
6. In the **Furniture and Fixture** division, the prizes number fourteen; with a total value of \$10,500. Two sub-classifications are set up; namely, **House and Office.**
7. For the **Commercial Welding** division, fourteen prizes worth a total of \$10,500 are set up. The two sub-classifications established are: **Job Shops and Garages.**
8. In the **Containers** division, fourteen prizes with a total value of \$10,500 are established. This division is split into two sub-classifications; namely, **Contents Stationary and Contents Moving.**
9. In the division of **Welderies**, \$10,500 will be distributed in fourteen prizes. This division has two sub-classifications; namely, **Commercial and Departments of Plants.**
10. In the **Functional Machinery** division, fifty-four prizes with a total value of \$25,300 are set up. This division is partitioned into ten sub-classifications; namely, **Metal Cutting, Metal Forming, Electrical, Prime Movers, Conveying, Pumps and Compressors, Business, Jigs and Fixtures, Parts,** and not otherwise classified.
11. In the division of **Industry Machinery**, prizes number fifty-four, with a total value of \$25,300. This division also has ten sub-classifications; namely,

Process, Construction, Petroleum, Steel Making, Framing, Household, Food-Making Textile and Clothing, Printing and not otherwise Classified.

To participate in this contest, it is necessary that submitted papers describe either the redesign of an existing machine, structure, buildings, etc., so that arc welding may be applied to its manufacture; or that they present a design (either in whole or in part) of a machine, structure, building, etc., not previously made—the description to show how a useful result; which was impractical with other methods of construction or could better be done by arc welding is obtained.

In certain classifications, however, slightly different eligibility requirements obtain. In the divisions of Commercial Welding and Welderies, for example, owners and operators of functioning establishments may enter the competition with papers which describe details for successfully conducting such a business.

Full details and entry blanks for this contest may be obtained from Mr. A. F. Davis, Secretary, The James F. Lincoln Arc Welding Foundation, Post Box 5728, Cleveland, Ohio, U. S. A.

The contest will remain open until June 1, 1938, but those who would like to win one of the prizes are urged to get more information from the Secretary.