

acknowledgment of my endowment of Scholarships for promoting Mechanical Science, and to the concluding sentence of the Minute which invites further suggestions and offers to render assistance in carrying out the intentions of the endowment:

1. I beg leave to enclose for the information of the Lords of the Committee of the Council on Education, a memorandum on the subject of the endowment, which I trust will meet with the approval of their Lordships, and that they will cause it to be circulated and the necessary correspondence arising out of it to be conducted by the Science and Art Department.

2. I would beg leave to ask the Lords of the Committee of Council on Education to undertake the examinations for these Scholarships.

3. As respects the preparation of the necessary details for the examination in the use of tools, I am willing to be responsible myself with the aid of friends, and I propose to obtain the consent of a few gentlemen to advise with me from time to time in whatever may arise in the future for my consideration.

4. In reply to the invitation of their Lordships to submit any suggestions, I venture to submit for consideration whether honors in the nature of Degrees might not be conferred by some competent authority on successful students each year, thus creating a faculty of Industry analogous to the existing faculties of Divinity, Law and Medicine. I am of opinion that such honors would be a great incentive to exertion and would tend greatly to promote the object in view.

5. I venture further to express a hope that the Government will provide the necessary funds for endowing a sufficient number of Professors of Mechanics throughout the United Kingdom.

6. In conclusion I inform you that the necessary arrangements for securing the endowment have been made, and I have given instructions for the preparation of the Draft of a Deed of Trust which will be sent for the approval of the Lord President.

I am, Sir,

Your obedient Servant,

JOSEPH WHITWORTH.

To Henry Cole, Esq.,  
Secretary of the Science and Art Department.

MEMORANDUM ON SCHOLARSHIPS FOR MECHANICAL SCIENCE.

TO BE COMPETED FOR IN MAY, 1869.

I. Having offered to the Lords of the Committee of Council on Education to "found thirty scholarships of the annual value of one hundred pounds each, to be applied for the further instruction of young men, natives of the United Kingdom, selected by open competition for their intelligence and proficiency in the theory and practice of Mechanics and its cognate sciences, with a view to the promotion of Engineering and Mechanical Industry in this Country," I propose that the following should be the general arrangements in the first instance, which may be modified after the first competition has taken place in May, 1869.

II. That the thirty Scholarships, of £100 each, should be open to all of Her Majesty's subjects, whether of the United Kingdom, India, or the Colonies, who do not exceed the age of twenty-six years, and be held either for two or three years, as experience may prove to be desirable: that ten Scholarships should be competed for and awarded in May, 1869, at the annual National examinations in Science, provided that a sufficient number of Candidates prove themselves to be competent: that the successful candidates should be required to spend the period of holding the Scholarships in the further satisfactory prosecution of the studies and practice of Mechanical Engineering, and pursue their studies according to the spirit of the endowment, making periodical reports of them: that the student should

state where he proposes to pursue his studies, the Lord President of the Council deciding if the proposal can be allowed, also if the student's progress be satisfactory, and the manner in which it shall be tested from year to year. In deciding if the plan of study proposed by the student be satisfactory, as much latitude as possible may be allowed. If the student wish to complete his general education, instead of continuing his special scientific study, he may be permitted to do so. He may go to the Universities or Colleges affording scientific or technical instruction, or he may travel abroad. The successful artisan should be encouraged to study Theory, and the successful competitor in Theory aided in getting admission to machine shops and other practical establishments. All further details would be hereafter prepared and issued by the Science and Art Department.

III. The candidates must be of sound bodily constitution.

IV. The first competition should be in the following theoretical subjects:—

1. Mathematics (elementary and higher).
2. Mechanics (theoretical and applied).
3. Practical Plane and Descriptive Geometry, and Mechanical and Freehand Drawing.
4. Physics.
5. Chemistry, including Metallurgy.

And in the following handicrafts:—

1. Smith's-work.
2. Turning.
3. Filing and Fitting.
4. Pattern Making and Moulding.

V. No Candidate should obtain a Scholarship who has not shown a satisfactory knowledge of all the following theoretical subjects:—

1. Elementary Mathematics.
2. Elementary Mechanics.
3. Practical Plane and Descriptive Geometry, and Freehand Drawing,

with the power to use one or more of the following classes of tools:—

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|---------------------------|---------------|
| a. The Axe.               | d. The File.  |
| b. The Saw and Plane.     | e. The Forge. |
| c. The Hammer and Chisel. |               |

I propose that the maximum number of marks obtainable in the theoretical subjects and those obtainable by the most skilled workman should be about equal.

VI. My object in devising the foregoing scheme has been, while requiring a practical acquaintance with a few simple tools as a *sine qua non*, to render the competition accessible on fairly equal terms to the student who combines some practice with his theory, and to the artisan who combines some theoretical knowledge with perfection of workmanship.

PREPARATORY EXHIBITIONS OF £25 FOR THE YEAR 1868.

VII. As the Scholarships' Scheme can only come into full operation by degrees, I propose from the fund ultimately available for the scheme at once to create 60 Exhibitions or premiums, of the value of £25 each, tenable until April 1869, and to place them at the absolute disposal of the governing bodies of the following Educational Institutions and Towns, in order that they may award them to youths under twenty-two years of age, who may thus be aided to qualify themselves, and must undertake to compete for the Scholarships of £100 in May, 1869.

VIII. 8 Exhibitions to Owens College, and 2 to the Grammar School, Manchester, the seat of my Workshops.

- 3 University of Oxford,
- 3 University of Cambridge,
- 3 University of London.