

3. 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,

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

*Memorandum on Scholarships for Mechanical Science.*

To be competed for in May, 1869.

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

And in the following handicrafts:—

- |                 |                                 |
|-----------------|---------------------------------|
| 1. Smiths-Work. | 3. Filing and Fitting.          |
| 2. Turning.     | 4. Pattern Making and Moulding. |

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

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

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

- |                           |               |
|---------------------------|---------------|
| 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 workmen 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 Scholarship Scheme can only come into full operation by degrees, I propose from the fund ultimately available for the scheme at once to create sixty 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.

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|----------------------------------|----------------------------|
| 8. Exhibitions to Owens College, | 3 University of Oxford,    |
| and 2 to the Grammar School,     | 3 University of Cambridge, |
| Manchester, the seat of my       | 3 University of London.    |
| Workshops.                       |                            |

And one to each of the following Universities, Colleges, and Public Schools:—

- |  |                                      |
|--|--------------------------------------|
| University of Durham,  | Westminster,                         |
| University of Dublin,  | Winchester,                          |
| University of Edinburgh,   | St. Paul's, London,                  |
| Watt Institution, Edinburgh,                                       | Merchant Tailors,                    |
| University of Glasgow,   | Christ's Hospital,                   |
| Andersonian University, Glasgow,                                   | City of London,                      |
| University of St. Andrews,   | Shrewsbury,                          |
| University of Aberdeen,  | Marlborough,                         |
| To each of the Queen's Colleges at Belfast, Cork, Galway, Ireland, | Cheltenham,                          |
| King's College, London,  | Chester,                             |
| University College, London,  | Clifton,                             |
| Eton,  | Brighton,                            |
| Harrow,  | Liverpool,                           |
| Rugby,   | 2 to the College of Preceptors,      |
| Charter House,   | 3 To the Science and art Department. |

I propose that the following Exhibitions shall be given to Artisans only:—

3 to the Society of Arts,

Also one for Artisans to each of the following towns:—

- |                           |              |
|---------------------------|--------------|
| Birmingham,               | Leeds,       |
| Bristol,                  | Northampton, |
| Swansea and Cardiff,      | Sheffield,   |
| Huddersfield, or Halifax, |              |

And if there be any of the above unapplied, they may be given by the Science and Art Department to any other Scholastic institution which makes satisfactory arrangements for affording instruction in Mathematics and Mechanics, Freehand and Mechanical Drawing.

IX. I would point out that the Exhibitions to Artisans may perhaps be increased to £50 for the year, by connecting them with the Science and Art Department, under the Minute of the 21st December, 1867.

(Signed)

JOSEPH WHITWORTH.

Manchester, 4th May, 1868.

*MINUTE ON MR. WHITWORTH'S OFFER TO ENDOW SCHOLARSHIPS*

At Whitehall, the 27th day of March, 1868.

By the Right Honourable the Lords of the Committee of Her Majesty's Most Honourable Privy Council on education.