

SOCIETY

FOR THE

ENCOURAGEMENT

OF

Arts, Manufactures, and Commerce.

PREMIUMS

FOR THE SESSIONS

1840—1841,

1841—1842.

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1840.

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Assistant-Secretary, MR. THOMAS WOODFALL.
Housekeeper, Miss A. B. COCKINGS.
Collector, Mr. H. T. WOODFALL.

ADVERTISEMENT TO THE PUBLIC.

THE chief object of the Society is to promote the Arts, Manufactures, and Commerce of this Kingdom, by giving honorary or pecuniary Rewards, as may be best adapted to the case, for the Communication to the Society, and through the Society to the Public, of all such useful Inventions, Discoveries, and Improvements (whether specified in these Premiums or not), as tend to that purpose: in pursuance of this plan, the Society have already expended upwards of a *Hundred Thousand Pounds*, derived from voluntary Subscriptions and Legacies.

The Meetings of the Society are held every Wednesday, at eight o'clock in the evening, from the first Wednesday in November to the second Wednesday in June. The Committees meet on other evenings in the week during the session, for the purpose of taking into consideration the subjects referred to them by the Society. A person desirous of becoming a Member of the Society may be proposed according to the following form, which must be signed by three Members of the Society, and delivered in to the Secretary:—

A. B. [*Trade, profession, or designation of the Candidate,*] proposed as a Member of the Society for the Encouragement of Arts, Manufactures, and Commerce, by

C. D.
E. F.
G. H.

[*Date.*]

Peers of the realm, or lords of parliament, are, on their being proposed, immediately balloted for; the names of other persons proposed to become members are read by the Secretary to the Society, and are then inserted in lists which are hung up in the Society's room: they are balloted for at the second following ordinary meeting. In both cases, if two-thirds of the members then voting ballot in their favour, they are deemed perpetual members on payment of not less than twenty guineas in one sum, or subscribing members on payment of any sum not less than two guineas annually.

Ladies are eligible to be members of the Society, and are entitled to vote personally, or by proxy, if such proxy be presented by a member.

Members are entitled to vote and assist in all the business of the Society and of the several committees. They have also the privilege of recommending two persons as visitors at the meetings of the Society; and, by addressing a note to the housekeeper, of introducing their friends on any week-day, except Wednesday, between the hours of ten and two, to examine the various models, machines, and productions, in different branches of arts, manufactures, and commerce, for which rewards have been bestowed: also to inspect the magnificent series of moral and historical paintings, executed by Barry, which, with some valuable busts, statues, portraits, &c. decorate the public rooms of the Society.

Members have also the privilege of admission to the monthly conversazione and illustrations of some subject of scientific interest, with a ticket for a friend, and of admission to the annual distribution of rewards, with three tickets for friends.

Members have the use of the Society's library, which is valuable, and annually increasing by the purchase and donation of scientific and useful books, and of engravings. Contributions from members and others, in augmentation of the library, and of the collection of maps and prints,

will be thankfully received, and acknowledged in the annual volume of the Society's Transactions, to a copy of which every member is entitled.

The Society desire it to be clearly understood, that they cannot be responsible for any opinion or representation of facts contained in their volumes. And the public are requested to guard against imposition from persons advertising as having patents for articles rewarded by the Society; they are also cautioned against purchasing articles sold under the pretended sanction of the Society's name.

The Society have lately published the 52d volume of their Transactions, which may be had by members on application to the housekeeper. Complete sets of their Transactions, or any single volume, may be purchased at the Society's house; where may be had also,

An *Analytical Index of the first twenty-five volumes* of the Transactions, to the termination of the session, June 1807, price 1s.

Ditto, continued to the end of the 40th volume, price 1s.

Ditto, to the end of the 50th volume, price 1s.

A catalogue of books in the Society's library, price 1s.

A description of Barry's paintings in the great room of the Society.

The Society have also republished Barry's own etchings from his pictures in the Society's great room, consisting of eight large plates and six small, together with his Lear, and an etching from his picture of Pandora by Schiavonetti; which may be had, half-bound, for two guineas to members, and three guineas to the public.

To persons inclined to leave a sum of money to this Society by will, the following form is offered for that purpose:

I give and bequeath to A. B. and C. D. the sum of _____, upon condition and to the intent that they, or one of them, do pay the same to the collector, for the time being, of a Society in London, who now call themselves *the Society for the Encouragement of Arts, Manufactures, and Commerce*; which said sum of _____ I will and desire may be paid out of my personal estate, and applied towards carrying on the laudable designs of the Society.

All communications are to be made by letter, addressed to W. A. GRAHAM, Esq. the Secretary, at the Society of Arts, &c. Adelphi, London; and where articles are sent by sea for the Society, the bills of lading are to be addressed to PETTY VAUGHAN, Esq. 70 Fenchurch Street, London, who has undertaken to receive them for the Society.

GENERAL NOTICE TO CANDIDATES.

THE great object of the Society, in rewarding individuals, is to draw forth and give currency to those inventions and improvements which are likely to benefit the public at large. Candidates are therefore requested to observe, that if the means by which the respective objects are effected require an expense or trouble too great for general purposes, the Society will not consider themselves bound to give the offered reward; but though they expressly reserve the power, in all cases, of giving such part only of any premium as the performance shall be adjudged to deserve, or of withholding the whole if there be no merit, yet the candidates may be assured the Society will always judge liberally of their several claims.

The Society by no means restrict their liberality to the subjects for which premiums are specially offered; but will take into consideration, and will reward by a bounty proportioned to its merit, any communication, the subject of which is of a practical

nature, and calculated to promote the public good, provided a description of the same has not previously been published.

All communications are to be made by letter (post-paid), addressed to the Secretary; and are to contain full and particular details, according to the nature of the subject, as well as accurate descriptions of such drawings and models as form part of the communication: the models to be sent *carriage-paid*.

No person shall receive any premium, bounty, or encouragement, from the Society, for any matter for which he has obtained any premium or reward from any other Society, or for which he has obtained, or purposes to obtain, a patent: it being a condition stipulated with every candidate, that all articles rewarded by the Society shall be freely given up to the public, to be made or manufactured by any person whomsoever.

All models, the production of which is attached as a condition to any premium, shall, upon delivery of such premium, remain the property of the Society.

Where premiums or bounties are obtained in consequence of specimens produced, the Society will retain such part of those specimens as they may judge necessary, making a reasonable allowance for the same.

No member of this Society shall be a candidate for, or entitled to receive, any premium, bounty, or reward whatsoever, except the honorary medals of the Society.

No candidate, not a member, shall be present at any meeting of the Society or committees, or be admitted at the Society's rooms, after having delivered in his claims, until such claims are adjudged, unless summoned by the committee.

Any candidate for a reward being detected in any attempt to impose upon the Society, shall forfeit such reward, and be deemed incapable of obtaining any for the future.

The consideration of the claims for the premiums offered in the present list will take place during the two sessions of the Society, 1840-41 and 1841-42. The several candidates and claimants, to whom the Society shall adjudge premiums or bounties, are to attend on the first Monday in June, or such other day as the Society shall appoint, to receive the same; and before that time no premium or bounty will be delivered, except by a special vote of the Society.

PROVINCIAL SOCIETIES.

Provincial Scientific Societies and Mechanics' Institutions, in any place not less than fifteen miles from London, desirous of becoming connected with this Society, and making an application, in writing, signed by their Secretary, accompanied by a copy of their Regulations, may, on payment of two guineas annually, be furnished with the annual volume of the Transactions, and with a ticket, transferable among the members of such Society, which shall admit the bearer as a visitor to the Museum and Library, and to all meetings of this Society and of the several committees.

Any Society having been admitted as above, and being desirous of possessing more than one transferable ticket, may obtain them on payment of one guinea annually for each additional ticket.

CLASS OF AGRICULTURE :

INCLUDING

PLANTING, GARDENING, AND EVERY BRANCH OF RURAL
ECONOMY.

For useful communications on any of these subjects, the Society will give Gold or Silver Medals, or Pecuniary Rewards, varying from Five to Fifty Pounds, according to circumstances; and it is particularly requested that such communications may be sent in,

if possible, not later than the first Monday in March, in order that they may be taken into consideration during the session in which they are received.
The objects to which the attention of the public is more particularly directed are arranged under the following heads:—

I.—IMPROVEMENT OF LAND.

For the discovery and application of superior or cheaper means of effecting any of the following objects:

1. Gaining extensive tracts of land from the sea, and bringing the same into cultivation.
2. Bringing into cultivation land previously lying waste.
3. Draining or otherwise improving land already under cultivation.
4. Making experiments for the purpose of quickly bringing substances employed as manure into a state fit to be used, and of ascertaining the best method of applying the substances already used as manure, or the successful introduction of any new substance for that purpose.

II.—PLANTING AND MANAGING FOREST AND FRUIT-TREES.

5. Making extensive plantations of forest-trees, particularly on land unfit for other purposes.
6. Making experiments, or communicating information, concerning the kinds of trees best adapted for cultivation in different soils and situations—or on the best modes of making and managing plantations, or live or dead fences—or of planting, pruning, and managing fruit-trees and orchards,—or of securing plantations from injury by hares, rabbits, sheep, or cattle.
7. Communicating information respecting the best methods of preserving the blossoms of fruit-trees from injury by frost, and of ripening tender fruits in the open air.
8. Introducing new and improved species or varieties of forest or fruit-trees, or ornamental shrubs or other plants.

The Society will be glad to receive seeds, grafts, or cuttings, for distribution.

(See *Premium No. 27, Colonies and Trade.*)

III.—CULTIVATION OF CORN AND OTHER PLANTS.

9. Making experiments, or communicating information, on the different methods of growing wheat and other grain, and on the varieties of each, with the modes of culture best adapted to various soils and situations.
10. Communicating similar experiments or information on the various native and foreign grasses, clover, lucern, &c., and on the soils best adapted to them respectively.

11. Communicating information concerning the cause of, or remedy for, the rotting of the roots of clover in the ground.

12. Communicating new or improved methods of harvesting corn, or making hay in wet seasons.

13. Discovering new or improved means of preserving agricultural produce, particularly roots and plants, during the winter, in a fit state for feeding cattle and sheep in the spring.

14. The discovery of new and effectual means of importing from distant countries plants, roots, and seeds, in a living state.

15. Making experiments, or communicating information respecting the possibility of making plants flourish in climates and situations very different from those in which they are found native.

16. Introducing new and useful vegetables, or producing new and improved varieties of those already in cultivation; or introducing any improvement in managing fruit or kitchen-gardens.

17. Discovering effectual methods of destroying noxious insects and preventing blights, or in any way improving the health of trees or plants.

IV.—CATTLE, SHEEP, PIGS, AND OTHER DOMESTIC ANIMALS.

18. Communicating new and useful information concerning the breeding, rearing, and feeding of cattle, or other domestic animals, with a view to improve their health or vigour, or to increase either the quantity or quality of the meat, milk, wool, or other produce.

19. Importing, breeding, and rearing, in this country, the Cashmere-shawl goat.

20. Ascertaining the value of salt in feeding cattle, or in improving the quality of hay injured by the weather.

V.—AGRICULTURAL BUILDINGS AND MACHINES.

21. Communicating any improvement in the construction of barns, stables, and other farm-buildings, or in the arrangement of a farm-yard, or in the construction and hanging of gates.

22. For any improvement in the method of building, heating, and managing hot-houses or conservatories.

23. Inventing or improving machines for performing, in a superior manner, or at a cheaper rate, any agricultural operations.

CLASS OF FINE ARTS.

The Society, having determined to confine their rewards in future to *original* productions in the Fine Arts, they offer gold and silver medals for *original* works of art in the following branches, viz.:—

- Historical subjects.
- Portraits.
- Landscapes.
- Fruit, flowers, and still-life.
- Enamels and miniatures.
- Designs in architecture and of architectural ornaments or details, and drawings of existing buildings, including geometrical elevations.
- Academical figures and studies from the round.
- Drawings of machinery and works in civil engineering.
- Engravings or etchings either on steel or copper.
- Wood engraving.
- Medal dies, gems, and cameos.
- Drawings in lithography.
- Models in wax or clay.
- Carvings in wood, ivory, marble, or other appropriate substance.
- Anatomical, botanical, and other scientific modelling or drawings.

All works in Architecture must be sent to the Society's house on or before the third Tuesday in January in each year; and all other works on or before the first Tuesday in March.

The performances sent in claim of the offered premiums must be delivered in without the names or any external intimation to whom they belong; but the candidates are required to affix on the front of their respective performances some motto or device, each performance having a different mark; and the same motto or device is to be inscribed on the *outside* of a paper, sealed up, containing *within* the name and residence of the candidate, and *on the outside* the sex and age; whether the candidate has previously received from the Society any, and what reward, and the year in which such reward was given; also to which of the four following classes the candidate belongs:—

1. Gentlemen Amateurs.
2. Ladies Amateurs.
3. Gentlemen, artists by profession, or such as intend to become so.
4. Ladies, artists by profession, or such as intend to become so.

The various performances will be divided according to the above classes, and will be subdivided in reference to their subjects and materials employed; and finally, as to the ages of the candidates, as follows:—

Candidates under the age of eighteen.

above the age of eighteen and under twenty-five.

And, when so arranged, not more than two rewards will, under any circumstances, be given in the same subdivision.

No candidate shall send more than one performance in each branch of art; but in case a candidate send, in the same year, performances in different branches, such circumstance must be stated on the outside of each sealed paper, together with the mark affixed to each performance.

No candidate will be allowed to retouch or varnish a performance after it has been received by the Society.

No candidate, having received a reward, shall afterwards receive an equal one in the same subdivision, or any reward in an inferior subdivision in the same department of art.

All works to which rewards are adjudged shall remain with the Society for exhibition until after the second Wednesday in June.

The Society will require a specimen of the abilities of each successful candidate, to be made at their house in the Adelphi.

Special Premiums to which the Limitations as to Age do not apply.

Stock Premiums.

In the year 1781, a bequest of 100*l.* consols was made by the late John Stock, Esq. of Hampstead, to be applied by the

Society in the encouragement of the Fine Arts.

1. In furtherance of this object, the Society offer their Gold Medallion for the best original design for a triumphal bridge,

to be sent in on or before the third Tuesday in January 1841.

The designs sent in claim of the above premium must consist of one or more perspective views, with such other drawings and plans as may be necessary to give a complete representation of the design, with a scale annexed.

2. For 1842. The Gold Medallion is offered for the best design for a farm-house, with outbuildings and appurtenances, adapted to a farm of from 250 to 500 acres, to be sent in on or before the third Tuesday in January 1842.

The design to consist of one or more perspective views, with plans, elevations, sections, and full particulars of the arrangements, in reference to good, cheap, and effectual warming, ventilating, draining, and other points of domestic economy adapted to such a purpose.

3. For 1843. The Gold Medallion is offered for the best design for a school-house and buildings, adapted to 100 boys and 100 girls, with residences for the master, matron, and other officers, the expense not exceeding 5000*l.* The drawings to be sent in on or before the third Tuesday in January 1843. *The conditions as for 1842.*

Acton Premiums.

In the year 1837, a gift of 500*l.* was made to the Society by Mrs. Hannah Acton, of Euston Square, for the purpose of enabling the Society to offer an annual reward for the promotion of practical carpentry, applicable to civil, naval, and military architecture.

4. In compliance with the terms of the above donation, the Society offer a Gold Medallion for the best design for a roof, 100 feet span and 150 feet in length, with the walling necessary for its support; the design to be sent in on or before the third Tuesday in January 1841.

Such designs must consist of a plan and two sections, with a scale annexed, neatly outlined in Indian ink, and tinted; with a model of one bay, or such larger portion as the candidate shall see fit.

A series of experiments, to test its strength, will be considered desirable.

The model and drawing to become the property of the Society.

5. For 1842. The Gold Medallion is offered for the best design for the hull timbers of a steam-vessel of 1000 tons burden.

Such design to consist either of a model or of a plan, section, and other drawings sufficient to explain the same.

The model or drawings to be sent in on or before the third Tuesday in January 1842; and, if rewarded, to become the property of the Society.

6. For 1843. The Gold Medallion is offered for the best design for a wooden bridge, having reference to strength, durability, economy, and beauty. *The conditions as for 1842.*

Ticket of Admission.

7. For the best design for a ticket of admission to the Society's great room and model room;—*the Gold Isis Medal.* The design, if rewarded, to become the property of the Society.

Application of Fine Art to Manufactures.

8. For the best original design in outline, from the vegetable kingdom, adapted to broad silk, linen, or worsted loom-weaving, with a copy thereof by the same person put on ruled paper or *mise en carte*;—*the Silver Medal and Five Pounds.*

9. For the best original design as a subject for modelling or carving, adapted to furniture or internal decoration, by an operative mechanic in either of those branches of art;—*the Silver Medal and Five Pounds.*

CLASS OF CHEMISTRY AND MINERALOGY.

Claims for premiums in this department, with full descriptions, certificates, and samples, where necessary, are to be sent in on or before the first Tuesday in February of the respective years for which they are offered.

Generation of Steam.

1. For the best method of generating steam, in such a manner that its quantity or force shall be materially increased, without increase of danger or expense;—*the Gold Medal.*

Prevention of Smoke.

2. For a method superior to any in use, and verified by practice, of preventing the emission of dense smoke from the chimnies of furnaces and fire-places;—*the Gold Medal.*

*Preventing Noxious Vapours in
Manufactories.*

3. For a method, superior to any in use, and verified by actual trial, of preventing the ill effects arising from noxious fumes disengaged in smelting ores, or in other chemical or manufacturing processes;—*the Gold Medal.*

Bar Iron.

4. For any material improvement in the manufacture of bar iron;—*the Gold Medal.*

Copper, Zinc, and Brass.

5. For any improvement in the manufacture of either copper, zinc, or brass, so as to render them equal in quality to the same imported from abroad;—*the Gold Medal.*

Metallic Alloys.

6. For the best set of experiments on any metallic alloy that can be usefully applied to the arts;—*the Gold Medal.*

The ingredients of the alloy to be two or more metals in a state of purity. The properties of the alloy particularly requiring notice are the fusibility, the liability to tarnish when exposed to damp air, or to be acted on by ordinary fluids, the tenacity, the cohesive force, the compactness, or porosity, the colour and the degree of polish of which it is susceptible.

Flint Glass for Optical Purposes.

7. For flint glass free from veins, as dense and transparent as the best now in use, and quite fit for the purpose of opticians;—*the Gold Medal.*

8. For the best account of the causes of the defects of flint glass, with the means which have been employed to remedy the same, accompanied by suggestions for the improvement of the manufacture;—*the Silver Medal.*

Crown Glass.

9. For any material improvement in the manufacture of crown glass;—*the Gold Medal.*

Copperplate Printers' Ink.

10. For a method of manufacturing a

black from which printers' ink may be made, equal to any hitherto known, and fit for the finest kind of copperplate printing;—*the Gold Isis Medal.*

Black Colour.

11. For the best set of experiments on the various substances from which durable black can be made suitable for painting in oil or water-colours, or for printers' ink;—*the Gold Isis Medal.*

Electricity.

12. For any important useful application of electricity to the arts;—*the Gold Medal.*

The Society have in view the probable economical application of electricity, galvanism, electro-magnetism, or magneto-electricity, to chemical manufactures, to the production of motive power and of light.

Dry Rot and Mildew.

13. For a method or methods of preventing dry rot or mildew in timber, canvass, or other vegetable substances, superior to those already in practice;—*the Gold Medal.*

*Preventing the Destructive
Effects from Moths.*

14. For a method of preventing the destructive effects occasioned by moths and other insects in furs, woollens, specimens of natural history, books, and other articles, superior to any hitherto known or practised;—*the Gold Medal.*

Lithographic Stone.

15. For the discovery in the United Kingdom, or in any British colony, of a bed of stone equal to the best German stone, for the purposes of lithography;—*the Gold Isis Medal.*

N.B. For useful communications on any of the applications of Chemistry to the Arts and Manufactures, especially in dyeing and calico-printing, and in the preparation of acids, alkalis, and compound salts, the Society will give Gold or Silver Medals, or Pecuniary Rewards, according to circumstances.

CLASS OF COLONIES AND TRADE.

Claims for the following premiums are to be sent in on or before the second Tuesday in March.

It is absolutely necessary that all statements made by candidates residing in the colonies should be authenticated by the certificates of the governor or secretary of the colony, or by two justices of the peace, or other competent local authorities.

Growth of Flax in British India.

1. To the person who shall raise the greatest quantity of flax, of good quality, in any of the British possessions in the East Indies, being the produce of not less than five English acres;—*the Gold Medal.*

Certificates of the number of acres cultivated, the mode of culture, the nature of the soil and weight of the produce, together with fourteen pounds of the flax, to be forwarded to the Society.

2. To the person who shall import into Great Britain or Ireland the greatest quantity of flax, of good quality, not less than one ton, grown in any of the British possessions in the East Indies;—*the Gold Isis Medal.*

Certificates of the importation, together with fourteen pounds of the flax, to be delivered to the Society.

Substitute for Hemp.

3. To the person who shall import at least two tons of any vegetable fibre, which shall be equally cheap, strong, and durable, and applicable to all the purposes for which hemp is now used;—*the Gold Medal.*

Cashmere Wool.

4. To the person who shall import the greatest quantity of real Cashmere wool, or other wool of equal quality and value, not less than 1 cwt., and in a state fit for spinning;—*the Gold Medal.*

Samples of the wool, not less than five pounds weight, to be produced to the Society.

Silk.

5. To the person who shall produce in any British colony, and shall import the greatest quantity of silk proper for manufactures, not less than one hundred pounds weight;—*the Gold Medal.*

Specimens of the silk, not less than one pound, with an account of the method by which the silk-worms were managed, the kind of mulberry-trees whence they were furnished with food, and particulars respecting the culture of the trees for that purpose, to be produced to the Society.

6. To the person who shall import the finest quality of silk produced in the East Indies, equal to the best Italian or China silk;—*the Gold Medal.*

One pound of the silk to be sent to the Society as a sample, with certificates that at least 100 lbs. of equal quality have been imported.

Caoutchouc.

7. To the person who shall import not less than one ton of caoutchouc from any country from which it has not hitherto been commonly imported;—*the Gold Ceres Medal.*

China Paper for Copperplate Printing.

8. To the person who shall communicate to the Society the best account of the process employed in China for the manufacture of paper used in England for copperplate printing, and known by the name of India paper, together with an account of the materials from which such paper is made;—*the Gold Medal.*

Specimens of the paper, with samples of the materials in their raw or unmanufactured state, to be produced to the Society.

China Porcelain.

9. To the person who shall communicate to the Society the best account of the processes employed in China in manufacturing porcelain, with specimens of the earths and plans of the furnaces;—*the Gold Medal.*

Diminution of Human Labour in the Cultivation of Sugar, &c.

10. To the person who shall produce to the Society a satisfactory account, founded on experience, of the most advantageous mode of diminishing the labour of persons employed in the cultivation of sugar, cotton, and coffee, in the West Indian colonies, by the substitution of machinery, or of cattle;—*the Gold Medal.*

Persons wishing for information on this subject are referred to Mr. Booker's account of the management of a cotton plant-

ation at Demerara, inserted in the 47th volume of the Society's Transactions.

11. To the person who shall introduce into any British colony the cultivation or production of any article of commerce which shall be equally profitable, but require less human labour, than the articles previously cultivated or produced;—*the Gold Medal*.

A full account of the articles produced, with the mode of culture and other processes, to be forwarded to the Society.

Olive Oil.

12. To the person who shall manufacture and import the finest specimen of oil, not less than ten gallons, the produce of olives grown in any British colony in Africa or Australia;—*the Gold Medal*.

Specimens of the oil, not less than two quarts, together with satisfactory certificates, to be produced to the Society.

Wine from Australia.

13. To the person who shall import the finest wine, not less than one pipe, of good marketable quality, made from the produce of vineyards in Australia;—*the Gold Medal*.

Samples of the wine, and certificates that the wine was made in the colony, to be produced to the Society, together with an account of the vineyards, and of the process of the manufacture.

Dried Fruits.

14. To the person who shall prepare in any British colony or possession, and import into Great Britain the greatest quantity, not less than 100 lbs. of dried fruits of good quality, similar to those now imported from the Mediterranean;—*the Gold Ceres Medal*.

Satisfactory certificates that the fruits were grown and prepared in the colony, with samples, to be presented to the Society.

Dried Plantains or Bananas.

15. To any person who shall dry and import into Great Britain, from any British colony or possession, the best sample of plantains, or bananas, not less than 2 cwt.;—*the Gold Ceres Medal*.

For the next in quality;—*the large Silver Medal*.

It is required that the candidates send to the Society a sample, not less than 10 lbs., with a certificate that at least 2 cwt. have been imported, of quality equal to the sample; also a written communication, stating the nature of the soil in which the plants have grown, the average weight of the bunches, the proportion of dried fruit

from 100 lbs. of the fresh ripe fruit: together with a full detail of the whole method of preparation.

The following is the method (according to information received from Captain Colquhoun, R. Art.) adopted in the hot country (*terre caliente*) of Jalisco and Mechoacan.

The bunch of fruit is allowed to remain on the plant till it is perfectly ripe, and its native sweetness fully developed; it is then cut off, and the plantains, being removed from the stalks, are spread out in the sunshine, on netting, or frames of bamboo. When the fruit begins to shrivel, the outer skin is peeled off without trouble, and the drying is continued till the fruit is of the consistence of a fig, and becomes covered over with a white, mealy, sugary efflorescence. In this state it forms a luscious sweetmeat, the flavour of which resembles that both of the fig and of the date. For convenience of transport, it is pressed into masses of about 75 lbs. each, and is wrapped up in dried plantain-leaves.

Nutmegs.

16. To the person who shall grow the finest sample of nutmegs, of good and merchantable quality, not less than twenty pounds weight, in any part of her Majesty's dominions in the West Indies, or in any British plantation on the coast of Africa, or of the several islands adjacent thereto, or in the island of Singapore, and equal to those imported from the islands of the East Indies;—*the Gold Medal*.

Satisfactory certificates of the place of growth, with an account of the number of trees, their age, nearly the quantity of fruit on each tree, and the manner of culture, together with samples of the nutmegs and of the mace, to be produced to the Society.

For Mr. Lockhart's paper on the cultivation of the nutmeg in the island of Trinidad, see the 48th volume of the Society's Transactions.

Cinnamon.

17. A premium, similar to the preceding, is offered for the growth of cinnamon.

Black Pepper.

18. To the person who shall raise, in any of the British West Indian colonies, and shall import the largest quantity, not less than 4 cwt., of good and marketable black pepper;—*the Gold Medal*.

Conditions the same as for No. 16.

Cultivation of the Tea Plant.

19. To the person who shall grow and prepare in the East Indies, or in any

British colony, the finest quality of tea ;
—*the Gold Medal.*

Samples amounting to at least 2lbs. with certificates that not less than 1 cwt. of equal quality has been prepared and imported into Great Britain, to be produced to the Society, together with full information as to the mode of growth and preparation.

China Tea.

20. To the person who shall communicate to the Society, from information obtained in China, the best and most authentic account of the culture of the plant or plants, the leaves of which furnish the different kinds of tea ; together with the methods of gathering, drying, and otherwise preparing the leaves ;—*the Gold Medal.*

Cocoa.

21. To the person who shall produce, in any of the British possessions in the East Indies, the greatest quantity, not less than 1 cwt., of cocoa of good quality ;—*the Gold Medal.*

Certificates of the number of trees, and of the average produce of each tree, with a sample of not less than 10lbs., to be forwarded to the Society.

Peruvian Coffee.

22. To the person who shall import the finest sample of Peruvian coffee, not less than one cwt. ;—*the Gold Ceres Medal.*

The coffee must be at least equal to good Mocha coffee. A sample of the same, not less than 10 lbs., must be sent to the Society, accompanied by a satisfactory certificate of its being Peruvian coffee.

Peruvian Brandy.

23. To the person who shall import the finest sample, not less than ten gallons, of Peruvian brandy, known by the name of Italia brandy ;—*the Gold Ceres Medal.*

The brandy must be at least equal to good Cognac brandy. A sample, not less than two quarts, to be sent to the Society, together with satisfactory certificates of its being Peruvian brandy.

Galium Tinctorium.

24. To the person who shall import, in good and sound condition, not less than fifty pounds of the dried roots of galium tinctorium, from which in Canada a bright

and durable red pigment has been prepared, and of which a report is given in the 46th and 48th volumes of the Society's Transactions ;—*the Gold Ceres Medal.*

Samples, not less than 10 lbs., to be produced to the Society, together with certificates that the entire quantity has been imported.

Cinchona.

25. To the person who shall communicate to the Society the best account of one or more of the species of cinchona, the bark of which is used in medicine, accompanied by specimens of the tree in leaf, flower, and seed ; and not less than 10 lbs. of the bark ;—*the Gold Medal.*

Rhubarb.

26. To the person who shall produce, in any British colony or possession, the greatest quantity of rhubarb, not less than 100lbs., equal to the average quality of Turkey or China rhubarb now in the market ;—*the Gold Medal.*

Certificates of the extent of land and number of plants, with some account of the species or variety cultivated, the average produce of each plant and samples of the rhubarb, to be forwarded to the Society.

Importation of certain Diœcious Plants.

There are certain valuable diœcious plants of which only one sex exists in this country, and the object of the following premium is to obtain the deficient sex of the several species mentioned, in order to the production of a succession of such plants from seed.

27. To the person who shall import into Great Britain any of the following plants ;—*the Gold Medal.*

<i>Populus fastigiata</i> (Lombardy poplar)	Female.
<i>Salix Babylonica</i> (weeping willow)	Male.
<i>Salisburia Adiantifolia</i>	Male.
<i>Pistacia Terebinthus</i>	Male.
<i>Maclura Aurantiaca</i>	Male.
<i>Broussonetia papyrifera</i> (paper mulberry)	Male.
<i>Aucuba japonica</i> (gold plant) ..	Male.
<i>Vallisneria spiralis</i>	Male.

Certificates, that the plant or plants have been, at least, two months in this country, and that they are in a thriving, healthy state, to be forwarded to the Society.

CLASS OF MANUFACTURES.

For general conditions, see Agriculture.

The objects to which the public attention is particularly directed are arranged under the following heads :—

Raw Materials.

1. For the profitable conversion of any hitherto unused raw material found in Great Britain or Ireland, or which may be advantageously imported.

Machinery.

2. For improving the construction or mode of operation of any of the machinery or implements used in the spinning, weaving, or dressing of silk, wool, cotton, or flax, or in the manufacture of paper.

Application of Chemistry to Manufactures.

3. For improving the methods at present in use in bleaching, dyeing, calico-printing, tanning, leather-dressing, or any other manufacture depending on chemical principles.

Glass and Potteries.

4. For any improvements in the manufacture of glass, porcelain, or earthenware.

Metals.

5. For any improvement in the manufacture of hardware, or of ornamental articles made entirely or partly of metal.

New Manufactures.

6. For the invention and introduction of any new manufacture.

Children in Manufactories.

7. For inventing machines or devising other scientific means, by which the condition of children in manufactories may be essentially ameliorated.

CLASS OF MECHANICS.

Including Hydraulic, Pneumatic, Optical, Mathematical, Astronomical, and Surgical Apparatus.

For the conditions of the premiums offered in this class, see those prefixed to the Agricultural premiums.

The attention of candidates is directed,—

1. To improvements in those important objects on which the interests of Great Britain essentially depend, namely, shipping, steam-engines, steam-boats, and carriages, roads, bridges, tunnels, canals, docks, and harbours, the construction of railroads, and modes of propelling rail-road carriages.

2. To improvements in the machinery used in manufactures.

3. To improvements in the tools used in the various handicraft trades.

4. To the diminution of labour required

to perform mechanical operations, either by improving the apparatus employed, or the mode of using it.

5. To the improvement of optical, mathematical, and astronomical, and especially of nautical instruments, in respect to accuracy or facility of use.

6. To the diminution of danger attending certain machines and operations, namely, steam-boilers, gunpowder-mills, stage-coaches, and the operations of boring, blasting, and working mines and quarries.

REWARDS

BESTOWED BY THE SOCIETY DURING THE SESSION

1838-39.

IN MECHANICS AND OTHER PRACTICAL ARTS.

1. To Mr. J. T. Cooper, Polytechnic Institution, Regent Street, for his method of preparing paper for photographic drawing, the Silver Medal.

2. To Mr. R. Redman, 43 Great Wild Street, Lincoln's Inn Fields, for his method of making transfers from copperplate printing to zinc or stone, the Silver Isis Medal and Five Pounds.

3. To Mr. H. C. Page, 5 Commercial Road, Pimlico, for his method of lettering on polished marble, the Silver Medal.

4. To Mr. W. H. Thornthwaite, 3 James Place, Hoxton, for his apparatus for the use of divers, the Silver Medal.

5. To Mr. W. Jones, 6 Horseshoe Court, Ludgate Hill, for his travelling platform, the Silver Isis Medal.

6. To Mr. M. Jennings, Portsmouth Street, Lincoln's Inn Fields, for his night signals for steamers, the Silver Isis Medal.

7. To Mr. James Hopkins, Globe Brewery, King's Row, Horsleydown, for his scale lever, the Silver Isis Medal.

8. To Mr. Benj. Holmes, Clerk of the Works at Chatsworth, for his spring-bolt plate, the Silver Isis Medal.

9. To Mr. J. Gray, 25 Old Burlington Street, for his improved instruments for extracting teeth, the Silver Medal.

10. To Mr. A. Wivell, 20 Cardington Street, Hampstead Road, for his fire-escape, the Silver Medal.

11. To Mr. Jos. Jeays, 6 Oxford Market, for his method of determining the lengths and levels of timbers in a hip-roof, the Silver Isis Medal.

12. To Mr. C. Hanchard, 35 Sebright Street, Bethnal Green, the Silver Isis Medal and Five Pounds.

13. To Mr. Jas. Cole, 38 Sebright Street, Bethnal Green, Five Pounds.

14. To Mr. J. Sodo, 6 Sebright Street, Bethnal Green, Five Pounds.

For their respective shares in the invention and improvement of the tube used in weaving wide silk velvet.

15. To Mr. J. Dove, 9 Surat Place, Green Street, Bethnal Green Road, for his improved machine for weaving silk tissue, the Silver Isis Medal and Ten Pounds.

THE THANKS OF THE SOCIETY HAVE BEEN VOTED TO

Mr. J. C. Bowles, 80 Cannon Street, for his apparatus for raising empty casks, and

for his improved put-log for building scaffolds.

Mr. G. Aikin, 10 Cook's Court, Carey Street, for his paper on the recent agricultural improvements in the Fen district.

Mr. W. Buchanan, of Chalk Lodge, Chess-hunt, for certain new varieties of the potato.

Mr. J. L. Fenner, 15 King's Row, Pentonville, for his method of exhausting the cupping-glass.

Mr. J. Marsh, Royal Arsenal, Woolwich, for his test for acids and alkalies prepared from the petals of the red dahlia.

IN THE FINE ARTS.

Amateurs.

COPIES.

16. To Mr. G. C. Handford, King's Road, Chelsea, for a copy in water-colours of a landscape, the Silver Palette.

17. To Mr. F. A. Brown, Cripplegate Ward School, for a copy in pencil of a head, the Silver Palette.

18. To Miss Rhoda Field, Baron Grove, Mitcham, for a copy of a head in chalk, the Silver Isis Medal.

ORIGINALS.

19. To Mr. J. C. Day, 41 Camden Street, Camden Town, for an original figure modelled in clay, the Silver Isis Medal.

20. To Miss A. M. Robertson, St. Peter's Square, Hammersmith, for a drawing in water-colours of flowers from nature, the Silver Isis Medal.

Artists.

COPIES.

21. To Mr. G. E. B. Lousada, 32 Brunswick Square, for a drawing in water-colours of Beauchamp Chapel, Warwick, the Silver Isis Medal.

22. To Mr. J. J. Farthing, Lynn, for a copy in pencil of a head, the Silver Palette.

ORIGINALS.

23. To Mr. J. F. Marshall, 50 Myrtle Street, Liverpool, for a painting in oil of domestic life, the Silver Medal.

24. To Mr. Felix R. Roffe, 52 Clarendon Street, Somers Town, for a drawing in water-colours of the interior of Dulwich Gallery, the Silver Medal.

25. To Master J. E. Millais, 4 Charlotte Street, Fitzroy Square, for a drawing in chalk from a bust, the Silver Isis Medal.

26. To Mr. Geo. J. Keet, Ivy Cottage, Grove Lane, Kensington, for an original portrait in chalk, the Silver Palette.

27. To Mr. W. Collingwood, Liverpool, for a landscape in water-colours, the Silver Palette.

28. To Miss Picken, 5 Randolph Street, Camden Town, for a group of figures in water-colours, the Silver Isis Medal.

29. To Miss F. S. Day, 41 Camden Street, Camden Town, for a portrait bust, the Silver Isis Medal.

30. To Mr. J. H. Taunton, 18 New Hall Street, Birmingham, for a drawing from measurement of a steam turning-lathe, the Silver Medal.

31. To Mr. Joel F. Earle, 1 Bellevue Terrace, Hull, for a drawing in Indian ink of the interior of Trinity Church, Hull, the Silver Medal.

32. To Mr. J. Clayton, 23 Hunter Street, Brunswick Square, for an original design for a steam packet wharf, the Silver Medal.

33. To Mr. Allan Bailey, Lower Brook Street, Ipswich, for an original design for a mercantile exchange, the Stock Gold Medallion.

34. To Mr. Robert W. Billings, Manor House, Kentish Town, for his analysis of the great east window of Carlisle Cathedral, the Acton Gold Medallion.

REWARDS

BESTOWED BY THE SOCIETY DURING THE SESSION

1839-40.

IN MECHANICS AND OTHER PRACTICAL ARTS.

1. To Mr. Jas. Hopkins, Globe Brewery, King's Row, Horsleydown, for his setter for a carriage, Five Guineas.

2. To Mr. Wm. Stidolph, 17 Lower Belgrave Street, Eaton Square, for his frame for teaching the blind to write, the Silver Isis Medal.

3. To Mr. Jas. Reeves, 47 Upper Seymour Street, Somers Town, for his adjustable scaffold, the Silver Medal and Five Pounds.

4. To Mr. F. E. Franklin, Purton, Wiltshire, for his screw bench-book for carpenters, the Silver Isis Medal.

5. To Mr. C. Arundel, 8 Great Mitchell Street, St. Luke's, for his improved fillister-plane, Five Pounds.

6. To Mr. Morgan Evans, 13 Wellington Street, Woolwich, for his universal drill-stone, the Silver Medal.

7. To Mr. J. Hick, jun. Bolton, Lancashire, for his expanding mandrel for turning-lathes, the Silver Medal.

8. To Mr. Robt. M'Ewen, Glasgow, for his double mercurial steam-gauge adapted to the purpose of a safe-valve for steam-engine boilers, the Gold Isis Medal.

9. To Mr. V. De Stains, 221 Regent Street, for his twisted-wire spring for carriages, the Silver Isis Medal.

10. To Lieut. Hills, R.N. Coast Guard Station, Lancing, for his machine for ascertaining the lee-way of a ship, the Silver Medal.

11. To Mr. J. Sperring, Duke Street,

Bloomsbury, for his chair for an observatory, the Silver Medal and Twenty Pounds.

12. To Mr. G. Austin, 36 Grafton Street, East, for his improved offset plotting scale, the Silver Medal.

13. To Mr. Lewis Thompson, 23 Paradise Street, Lambeth Walk, for his new and improved method of assaying gold, Twenty Guineas.

14. To Dr. O'Callaghan, 4th Dragoon Guards, for his apparatus for suspending injured limbs, the Silver Medal.

15. To Mr. Josh. Paxton, Chatsworth, for his machine for cutting sash-bars, the Silver Medal.

16. To Mr. Alfred Smees, Bank of England, for his chemico-mechanical galvanic battery, the Gold Isis Medal.

17. To Mr. C. A. Bruce, for discovering the indigenous tea-tracts, and successfully cultivating and preparing tea in the British possessions in India, the Gold Medal.

THE THANKS OF THE SOCIETY

HAVE BEEN VOTED TO

Mr. W. Felkin, Nottingham, for specimens of silk grown in England.

Mr. E. Hornor, Denham Park, for his guard for preventing crib-biting in horses.

Mr. M. Jennings, 6 Richmond Place, Richmond Road, Kingsland, for his paper on night-signals for steam-vessels.

Mr. C. Varley, 1 Charles Street, Clarendon Square, for his improvements in the phial-microscope.

Mr. G. Yeldham, 5 Adelaide Place, London Bridge, for his improved drawing-board.

Mr. Josh. Glynn, Butterley Iron Works, Derbyshire, for his communication on substituting talc for glass in his steam-engine manufactory.

Mr. W. Key, 111 London Wall, for his method of manufacturing waterproof boots and shoes.

Mr. W. H. B. Webster, Carr Street, Ipswich, for his paper on the use of coal-dust and other substances as manures.

Mr. Henry Smith, Devonshire Buildings, Bath, for his method of amputating the limbs of trees.

IN THE FINE ARTS.

Amateurs.

COPIES.

18. To Master Thos. Woodbridge, 7 Trinidad Place, Liverpool Road, Islington, for a copy of a horse's head, embossed in copper, the Silver Isis Medal.

19. To Master Grant, 71 Cheapside, for a copy in water-colours of a landscape, the Silver Isis Medal.

20. To Miss Ellen Elen, 43 Robert Street, Regent's Park, for a copy in pencil of sheep, the Silver Palette.

21. To Miss Sarah Barnard, Belvidere Road, Lambeth, for a copy in chalk of a head, the Silver Palette.

ORIGINALS.

22. To Mr. G. E. Sintzenich, 2 St. Paul's Churchyard, for a water-colour drawing of horses, the Silver Medal.

23. To Miss Elizabeth Mole, Bury Road, Gosport, for five Cameos, the Silver Medal.

Artists.

COPY.

24. To Mr. Thomas Fuller, 11 Springfield Place, Bath, for a coloured drawing of a Corinthian capital, the Silver Isis Medal.

ORIGINALS.

25. To Mr. John W. Papworth, 10 Caroline Street, Bedford Square, for a design for a naval monument, the Gold Isis Medal.

26. To Mr. Cuthbert Brodrick, 39 George Street, Kingston-upon-Hull, for a sketch of the Percy Shrine in Beverley Minster, the Silver Medal.

27. To Mr. Jas. Clarke Hook, 27 Chester Place, Kennington Cross, for two portraits in oil, the Silver Medal.

28. To Mr. George Wood, 65 Upper Charlotte Street, Fitzroy Square, for a drawing in chalk from a bust, the Silver Palette.

29. To Mr. Frederick Lock, 50 Berners Street, for a drawing in chalk from a cast, the Silver Isis Medal.

30. To Master John Everett Millais, 23 Alfred Street, Bedford Square, for an historical composition in pencil, the Silver Isis Medal.

31. To Mr. Henry Feldwick, 10 Southampton Place, Euston Square, for an engraving on wood, the Silver Isis Medal.

32. To Master G. Thomas, 12 Canterbury Row, Kennington, for a composition in sepia of figures, the Silver Palette.

33. To Mr. John Farthing, Lynn, for a drawing in water-colours, of still-life, the Silver Palette.

34. To Mr. W. Day, 41 Camden Street, Camden Town, for a clay model of a group, the Silver Medal.

35. To Mr. Samuel Manning, jun., 17 Newman Street, for a clay model of a group, the Silver Medal.

W. A. GRAHAM, *Sec.*