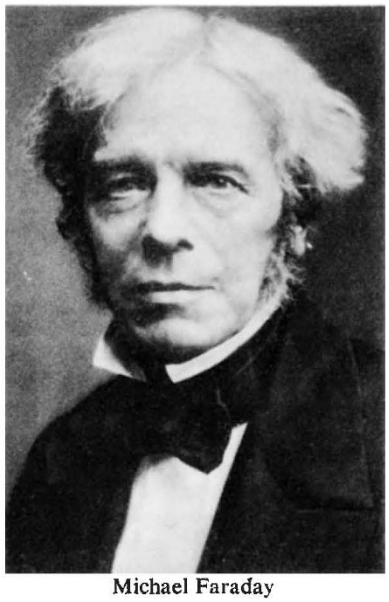
HISTORY OF SCIENCE

Faradaylia

More than 105 years after his death, the Royal Institution has finally paid tribute to Michael Faraday. Earlier this week the Queen, the Royal Institution's patron, opened a museum, an archive room and a refurbished laboratory, all bearing Faraday's name.

Professor Sir George Porter, the institution's director, repeated Faradays' chief experiments on electricity —including, with commendable energy, a hand-driven demonstration of electromagnetic induction with a light bulb, a coil and an iron bar—and the Queen unveiled a plaque on the floor below, initiating the curtain motor by an impulse from the original iron ring used by Faraday when he discovered electromagnetic induction. The ring worked, the curtain drew back and everyone applauded.



Michael Faraday

The Royal Institution has presented its treasures well. Probably the most complete collection of the work of one scientist, the Faraday museum contains models of the first electric motor, examples of early generators of Faraday's time, apparatus made by Newton for Faraday and such items as his "electric egg" used for the study of discharge in gases at different pressures. The archives room contains Faraday's diaries, all 16,000 entries, each one of which added something to scientific knowledge, and a copy of the probate of his will in which he wrote of his manscripts " . . . these I offer for the library of the Royal Institution, if my managers should think them worth a place; if not they remain at the disposal of my executors".

The archives also contain manuscripts of Davy, Tyndall, the Braggs, T. H. Huxley and Spottiswoode to name but a few. But the highlight of the displays is a reconstruction of the small laboratory in which Faraday made most of his discoveries. The room has been returned as far as possible to its nineteenth century appearance, with pieces of Faraday's apparatus dotted about the place, including the great horseshoe electromagnet he built. It is cleverly done, carefully lit, and looks as though Faraday has just left the room for a moment.

The Royal Institution may have been a long time making its Faraday collection available to the public, and it may be all of five years since the Faraday Centenary Appeal raised the money to carry out the transformation of the laboratory (in the form of a gift from the Camille and Henry Dreyfus Foundation), but it has been worth the wait.

HORTICULTURE

Mercury Substitute

A development which obviates the need to use compounds of mercury to dress seeds has been turned to commercial use by scientists at Rothwell Plant Health in Lincolnshire.

Traditionally, seeds have been dressed with mercury compounds before planting to avoid diseased crops. But even though the amounts of mercury compounds used worldwide for agricultural purposes are small—in 1968 slightly more than 2,140 tonnes were used, 1,600 tonnes in Japan, 400 tonnes in the United States and only 20 tonnes in Britain—there has been concern about the health of the people who carry out the dressing process.

During recent years there have been several attempts to develop a seed dressing as effective as mercury which is not toxic, and the dressings which have been developed were found to be effective for a particular variety of seed, but, generally speaking, no universal substitute for mercury has been marketed until recently.

In 1972, Rothwell Plant Health Limited of Lincoln marketed a dressing composed of a mixture of carboxin and thiram which, it is claimed, is as effective as mercury in preventing disease in cereal crops. But to buy a ton of seed dressed with the non-mercurial dressing costs £4 more than the mercury dressed seed. At present a farmer who wishes to buy a ton of wheat seed will probably pay about £60 or £64, depending on the dressing used.

Rothwell is also developing a hybrid wheat variety. Mr Giles Dixon, director of scientific development at Rothwell Plant Breeders, said recently that the aim is to produce an F_1 hybrid with a yield 25 per cent greater than non-hybrid varieties at the time that the hybrid would be sold commercially. Mr Dixon also said that it would probably be five years before it was known whether the hybrid variety would be commercially viable.

SCIENCE MUSEUM

Props for the Provinces

A fund of £150,000 has been set up by the government to help needy provincial museums to purchase and install scientific and technological material.

The fund is to be administered by the Science Museum and becomes available on April 2 this year. Its aim is to establish gradually a national pattern of acquisitions, avoiding unnecessary duplication and encouraging regional museums to build up specializations in subjects related to the particular industries and interests of their areas.

The terms of reference of the fund are broad. Any object of scientific or technological interest is covered—including those relating to the biological and geological sciences—and transport, restoration and installation all qualify for financial support.

Miss Margaret Weston, the Science Museum's new and young director, said this week that the fund, which is designed to avoid the loss of technological and scientific material that has taken place in recent years, "will help a lot", and she is looking forward to seeing what kind of material the provincial museums wish to save.

The fund is the result of a report presented nearly two years ago by the Standing Commission on Museums and Galleries which recommended that £200,000 a year should be made available to help the provincial museums. Although the Paymaster-General has only approved £150,000 for the first year, Miss Weston points out that the grant is renewable each year and may well be increased.

The granting of money to provincial museums is a matter in which science has lagged behind the arts. The Victoria and Albert Museum has had a similar scheme running for several years, and although it was quite willing to consider scientific and related objects, this is the first time a strictly scientific fund has become available.

When considering applications, Miss Weston said this week, the Science Museum will consult with the Geological Museum and the National Maritime Museum where necessary. Initial reaction among provincial museums is enthusiastic.

A hidden bonus for the Science Museum is that the new fund throws into greater relief the Science Museum's current acquisitions grant,