

PHARMACEUTICAL HISTORY BROUGHT TO LIGHT BY A FAMOUS MISNAMED PICTURE.

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Hanging in the Library at the Chemists' Club in New York City is to be seen a picture which has, until recently, been entitled "Michael Faraday Washing Apparatus for Sir Humphrey Davy;" this was presented to the Club by the late Dr. Charles F. Chandler, famous American chemist and one of the founders of the American Chemical Society, who purchased it from an art dealer when on a visit to England, being told that it bore the above-mentioned title. By chemists in this country it has always been accepted as authentic and has found its way into textbooks on chemistry and other publications.

Dr. H. V. Army drew the attention of the writer, a few months ago, to the cover illustration of Vol. II, No. 11, June 1930, of the *Percolator*, the monthly publication of the Chemists' Club; this was a reproduction of the picture and on page 151, the *Percolator* says "the original is a water-color painting by W. Hunt, representing the laboratory of John Bell in Oxford Street, London. It shows John Simmonds and the boy William, although it was formerly thought to be Michael Faraday washing apparatus for Sir Humphrey Davy." It seemed that it would be of interest to pharmacists to find out as much as possible of the story of the picture, and in the search for information a wealth of pharmaceutical history has come to light.

Doubt as to the title of the picture at the Chemists' Club was first expressed by Mr. F. H. Carr, then president of the Society of Chemical Industry in England, who was visiting this country in 1928, and in a conversation with Dr. Arthur D. Little said he thought the laboratory represented was that of John Bell; on his return to England he made some investigations, and in June 1929 wrote to Dr. Little telling him that the picture was called "The Laboratory" and represented the premises of Jacob Bell in Oxford Street; he referred to the issue of the *Chemist and Druggist* for July 30, 1898, where the picture is reproduced and is said to represent John Simmonds and the boy William; Mr. Carr said there is little reason to believe the truth of the allegation that it is Michael Faraday and Humphrey Davy. Dr. Little sent Mr. Carr's letter to Mr. D. D. Berolzheimer, editor of the *Percolator*, and it was printed in Vol. II, No. 3, November 1929. Dr. Little said that he himself had visited Faraday's laboratory at the Royal Institution in London and that it was not at all like the picture; this statement, however, proves nothing, since Faraday is said to be the boy in the picture and it has been supposed that the laboratory represented is that of Sir Humphrey Davy for whom he worked.

It is interesting to note a few places where the picture has been reproduced. It may be found in "Smith's College Chemistry" revised and rewritten by James Kendall, 1922, on page 347, under the title "Michael Faraday Washing Apparatus for Sir Humphrey Davy," and in "College Chemistry Companion," by James Kendall, 1924, as the frontispiece, under the same title. The picture appears also in the *Journal of Chemical Education*, Vol. II, No. 9, September 1925, as the inauguration of a new feature, "the publishing each month of a reproduction of a work of art on a subject of interest to chemists or students of chemistry," entitled "Michael Faraday Washing Apparatus for Sir Humphrey Davy." Again in

the same *Journal*, Vol. V, No. 10, October 1928, it is used as an illustration for an article "Contributions of Chemistry to Industry, Part I," by Walter A. Schmidt, with the legend, "Michael Faraday Washing Apparatus in the Laboratory of Sir Humphrey Davy." However, the *Journal*, Vol. VII, No. 4, April 1930, quoting from the *Chemical Age*, January 4, 1930, calls attention to the wrong title and corrects it, citing Dr. Little's letter in the *Percolator* for November 1929. Apparently, now, chemists will realize that they no longer have any claim to the picture.

Mr. Hugh N. Linstead, Secretary and Registrar of the Pharmaceutical Society of Great Britain, who is personally known to the writer, has kindly supplied some information which he has gathered concerning Bell's; strangely enough, just at

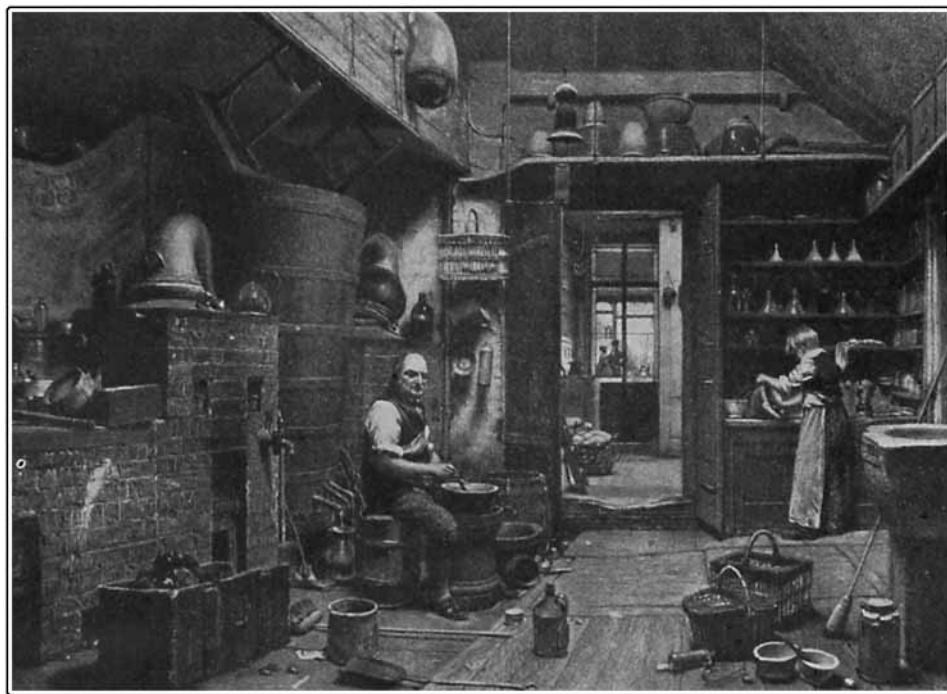


Plate I.—"The Laboratory" engraved by J. D. Murray, from painting by W. Hunt.
Reproduced from copy in British Museum Print Room (No. 1864/6/11/9).

this time he himself was interested in the picture, as a copy had recently come into his possession. The reproduction here given (Plate I) is from a photograph sent by Mr. Linstead, taken from the copy of the engraving in the Print Room of the British Museum (No. 1864/6/11/9); it is called "The Laboratory" and was engraved by J. D. Murray from the painting by W. Hunt in 1840, and published on March 1, 1842; on the back of the British Museum copy is written in pencil, "Jacob Bell's Laboratory, Oxford St." Professor H. G. Greenish, dean of the School of Pharmacy of the Pharmaceutical Society, has told Mr. Linstead that he visited that laboratory before extensive alterations were carried out in 1870, and is quite sure that the picture represents the laboratory at the back of the shop of

John Bell & Co. at 225 Oxford Street. A copy hangs in the Wellcome Historical Medical Museum in Wigmore St., London, where are also the actual shop-front of 225 Oxford Street (reproduced here, Plate II), and many pieces of apparatus shown in the picture, for example, the big wooden receiver for distilled water seen on the left. Through the shop-door is a view straight up Great Portland Street, corresponding with the site of the shop. It has been reported that the staff in 1840 were very annoyed because the artist put the shovel, etc., on the floor which was usually kept clear. It appears that the old man was John Sim-



Plate II.—Shop-front of John Bell & Co., preserved in Wellcome Historical Medical Museum. Copyright, The Wellcome Historical Medical Museum.

monds, who had been with the firm almost from its founding in 1798 when he was shop-boy; the boy in the picture was known as William (surname unrecorded), and he remained at Bell's for a great many years. The *Chemist and Druggist* (July 30, 1898, page 160) says Hunt's picture represents the laboratory "in the Fifties," while the *Pharmaceutical Journal* (July 23, 1898, page 87) calls it the "Original Laboratory" of John Bell & Co.; there seems to be no doubt that Hunt painted the laboratory as it actually appeared in 1840, and if the statement is to be believed that Jacob Bell in his early years in the business substantially altered it, then this altered laboratory is the one Hunt painted, and, of the titles given

by the *Chemist and Druggist* and the *Pharmaceutical Journal*, neither can be considered correct.

William Henry Hunt, the painter of the picture, is worthy of some comment in an article such as this. Born in 1790, and becoming a student at the Royal Academy, he had three oil paintings hung there in 1807; in 1814 he first exhibited at the Society of Painters in Water-color, becoming an associate of the Society in 1824 and a full member in 1827; to the year of his death he was a most prolific contributor to the Society's exhibitions, in all about 800 of his works appearing there. He was one of the creators of the English School of water-color painting, his sense of color being extraordinarily true; his subjects were usually interiors or still life; one authority states that "The Laboratory" is among his best works. Ruskin lectured at the Royal Academy on Hunt as a painter, and of him he said, "He was, take him for all in all, the finest painter of still life that ever existed." It is said that Hunt was not a striking man nor a brilliant member of society; it is interesting to note that a writer of some reminiscences of Hunt states that he

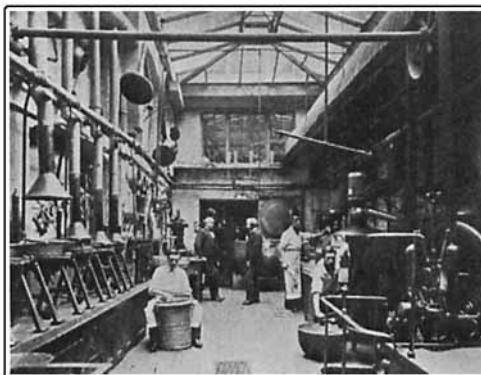


Plate III.—Laboratory of John Bell & Co. in 1871, taken from the shop.



Plate IV.—Laboratory of John Bell & Co. in 1871, looking toward the shop.

first met the artist at the house of Mr. Maw, where Hunt was a frequent visitor; the Mr. Maw referred to was the senior partner of the firm of J. and S. Maw of Aldersgate Street, London, manufacturers of surgical appliances and druggists' sundries—since known all over the world as S. Maw, Son & Sons. Mr. Maw was himself an amateur painter of no mean ability and a sound critic, his house containing pictures by the best artists of the age; he had possessed himself of a choice collection of Turner's works long before the merits of this artist were made known by Ruskin. Hunt died in the year 1864.

It would be of interest to trace the history of John Bell & Co. but that would be a long story, and so brief mention is made here of some of the men connected with the business who became widely known, to show how big a part has been played by the firm in the history of British pharmacy.

John Bell opened the shop at 338 (since known as 225) Oxford St., London, in 1798. At the start, business was not very flourishing and the story is told that John Simmonds, the shop-boy would sometimes be instructed to pound a duster continuously in a mortar so that the noise would make people believe that a great deal of work was being done; whether this is true it is impossible to say, but since it is known that John Bell was a strict Quaker, it is doubtful if he

would stoop to such deception; however, this pounding of dusters was even at a much later period apparently common, as the writer's father, himself a pharmaceutical chemist, has vouched for its being carried out in shops in which he worked in his youth.

A little later, business increased and the staff consisted of three apprentices and two shopmen, the latter working in the back-shop which was called the "Elaboratory." Regulations in force at this time have been preserved; these detailed the work to be done by the various members of the staff and it is interesting to read at the present time under the heading "Sundries to be done every morning before breakfast" the item "Trim and clean lamps;" another regulation reads "When no customers present see that supplies are full, prepare pills, pick gums, etc. 'To avoid disappointing of customers, and to be particularly careful not to allow them to wait without being spoken to.'" There are also rules for personal conduct, for example, "Rise at 7, go to bed at 11 and be cleaned at breakfast time," and "Remember it is as much in the power and duty of the employed as the employer to study to make each other happy, and to strive to do as he would be done by."



Plate V.—Etching by Macbeth of laboratory of John Bell & Co. in the nineties, looking toward the shop.

In 1819, John took two of his assistants into partnership and later, in 1836, when they retired, John's two sons Jacob and Frederick John who had been working in the business, became members of the firm. John was one of the founders of the Pharmaceutical Society of Great Britain, in 1841, but at this time was leaving the business much in the charge of his sons and busying himself with the good works of the Society of Friends at Wandsworth, a few miles out of London, where he lived. Frederick John retired from the business in 1847, and when John Bell died in 1849, Jacob became the proprietor.

In 1821 Theophilus Redwood, having served an apprenticeship with a Cardiff apothecary, came to work at Bell's and in 1824 took charge of the dispensing; at this time it was found necessary to enlarge the pharmacy and all members of the staff were invited to submit plans, a premium being offered for the one approved; Redwood's design was accepted in every detail and the pharmacy altered accordingly; a double shop-front was put in, the windows being bow-shaped and containing nothing but carboys of different colors—doubtless this front is the one preserved in the Wellcome Museum. Redwood afterwards went into business on his own account as a

chemical manufacturer, and later became well known to generations of students at the School of Pharmacy of the Pharmaceutical Society; he first gave lectures there in February 1842, and in May of the same year was appointed one of the three permanent lecturers; he was director of the Laboratory (which was planned from his designs and which was the first in England opened for instruction in chemistry) 1844-1862, Professor of Chemistry and Pharmacy 1846-1885, Curator of the Chemical Museum 1844-1867 and Professor Emeritus 1885-1892. He served as president of the British Pharmaceutical Conference 1875-1877. Mention must be made here of Redwood's famous son, Boverton, who in his youth worked in his father's laboratories at the School of Pharmacy; later he became an authority on petroleum and in 1886 devised the well-known Redwood viscometer; he was knighted in 1905 and made a baronet in 1911. At his death, in 1919, an obituary notice said "By his decease the British petroleum industry loses its foremost technologist." Contemporaries of Redwood's at Bell's were Robert Alsop, well known for his work on infusions and George Nelson, later famous as a manufacturer of gelatin.

Jacob Bell entered his father's business in 1827, at the age of 17, and lived in the house with the other apprentices, working with them in chemical and other studies; he and Redwood together attended Michael Faraday's and Professor Brande's lectures at the Royal Institution, while Bell at the same time studied at King's College and went to an art school, working under Sass and H. P. Briggs, R.A.; he was obliged to give up his art studies, however, owing to the fact that he had not much time to spare for them; it is said that he showed little aptitude, though he was extraordinarily clever at making humorous sketches for his own amusement. During his apprenticeship he was also interested in the study of comparative anatomy and was very successful in the preparation of skeletons of animals, which he carried out in his leisure hours. Later, he set up a laboratory for himself in his bedroom over the shop in Oxford Street and there carried out chemical experiments. It is to be observed that the young Jacob Bell had many interests and his days must have been fully occupied, but he found time for a round of social activities as the gaieties of London life appealed to him; before he was 30, though a bachelor, he was running a large establishment in Langham Place, which soon became the center of a literary and artistic circle. At this time he began to get together a collection of pictures which grew later, when his means increased, to large proportions; among the collection, some of the better-known works were "Dignity and Impudence," by Sir Edwin Landseer, famous painter of animals; a replica of Rosa Bonheur's "Horse Fair," by the artist herself, and Frith's "Derby Day;" these, together with some other paintings, about 20 in all, were left by Jacob Bell at his death to the nation, and at that time it was said that the value of the legacy was about £20,000. It is possible that Hunt was one of the artists who were numbered among Bell's friends who were frequent visitors to his house. Sir Edwin Landseer was one of Jacob Bell's closest friends and shortly before Bell died, he painted a remarkable likeness of him; this came into the possession of Thomas Hyde Hills who after Bell's death, had engravings made of it at his own expense by Landseer's brother, Thomas; these were sold and the entire proceeds given to the Pharmaceutical Society.

Jacob and his brother often talked with some of the members of the staff at Bell's of forming a society for mutual improvement, and the general improvement of the whole body of chemists and druggists; the idea took shape in March 1841 at a tea-party at Jacob Bell's, when the Pharmaceutical Society of Great Britain came into being; its formal constitution, however, took place at the Crown and

Anchor Tavern in the Strand a month later. The first roll of members contained, among others, the names of John Bell and his two sons, with those of 10 of their assistants. With the work of the Society Jacob became very closely bound up for the rest of his life; in July 1841 he produced the first number of the *Pharmaceutical Journal*, and was its editor until his death—no small work for a man with so many interests. In 1850 he wished to enter Parliament to secure an Act for the regulation of Pharmacy and he was elected as a Liberal member for St. Albans; in the following year he moved for leave to bring in a bill to regulate the qualification of pharmacists; this Pharmacy Bill was introduced and read twice. In 1852 he again brought in the Pharmacy Bill, which was read twice and eventually amended and passed, and received the royal assent that same year. Bell was disappointed, as the amended bill was not exactly what was wanted, but it was better than none; he was not elected to Parliament again.

He served as president of the Pharmaceutical Society 1856–1859, though already in failing health owing to an affection of the larynx; on May 18, 1859 he presided at the annual meeting, although he could not speak above a whisper; his admirable address was written and in this he set out what had been his rules of action, and these are worth recording here: “(1) Never to take offence at any reception, however cool, abrupt or even rude. (2) Not to be discouraged at a cold shoulder. (3) Not to look down on a man because he has a small shop or lives in a back street. (4) Never to lose sight of the main object from a mistaken notion of dignity and self-respect. (5) Never to be goaded into a quarrel or loss of temper.” On June 1st he presided at a meeting of the Council for the last time, and on June 12th he passed away. To the Pharmaceutical Society in his will, he left a legacy of £2000 to set up new laboratories. A bust of Jacob Bell stands in a niche in the hall at 17 Bloomsbury Square, immediately opposite the main entrance, and this serves to remind pharmacists, as soon as they come into the building, of one of the Fathers of British Pharmacy; his portrait is to be seen in the Council Room, along with those of other presidents of the Society; his name is perpetuated by the “Jacob Bell Scholarships” to which reference is made later.

In the early thirties, Henry Deane was superintendent of the laboratory at Bell's but in 1837 he left and bought the business at 17 The Pavement, Clapham Common, which is still known as “Deane's” though no longer owned by anyone of that name. Deane was one of the founders of the Pharmaceutical Society, and after serving as vice-president 1851–1852, became president 1853–1854, afterwards remaining on the Council and becoming a member of the Board of Examiners; he was president of the British Pharmaceutical Conference for the first two years of its existence 1863–1865.

When Deane left Bell's, charge of the laboratory was given to George Baggett Francis, whose name appears on the first roll of members of the Pharmaceutical Society; Francis was at this time the head of the household at 225 Oxford Street and here in 1850 his son George Bult Francis was born; as a child George Bult frequently saw Jacob Bell, and in after years proudly recalled how he had been dandled on Bell's knee; as a young man he attended the Society's School and afterwards joined his father's firm, known as Hearon Squire & Francis, which became eventually one of the businesses making up the now well-known British Drug Houses, Ltd., of which company George Bult Francis became a director. He was the possessor of a notebook kept by Jacob Bell when an apprentice, and in this are to be seen entries of his work and some drawings, not all of which are serious; this book was presented to the Pharmaceutical Society in 1922 and is preserved in the Library. George Bult Francis died in 1929; it is his son Alan,

one of the directors of the British Drug Houses, Ltd., who recently gave Mr. Linstead a copy of Hunt's picture, which he had found among his father's possessions.

Another name connected with Bell's to be found on the Pharmaceutical Society's first list of members is that of Robert Bentley, who worked in the pharmacy while a student at the Society's School in 1842. Later, he became professor of Botany in the School 1849-1852, professor of Botany and *Materia Medica* 1852-1887 and Professor Emeritus 1887-1893; he also held the position of curator of the *Materia Medica* and Botanical Museum 1849-1867, and served as president of the British Pharmaceutical Conference 1865-1867. He was a Fellow of the Linnean Society and the author of various works on botany.

Thomas Hyde Hills, having served an apprenticeship at Brighton with a former Bell's assistant, came to London in 1837 and was engaged by John Bell; Jacob, only five years Hills' senior, took a great fancy to the young man and almost from the first Hills lived at Langham Place with him, staying there after Jacob's death in 1859, keeping the house as a center for Jacob's friends until death thinned their ranks, and being always ready to throw it open for conferences and meetings. Hills became superintendent of Bell's laboratory in 1845, attended the School of Pharmacy and qualified as a pharmaceutical chemist in 1848; by this time he was indispensable to Jacob Bell, who, after losing his father and brother from the business, made him a partner in 1852. Samuel Gale, who had been a student in the School of Pharmacy in 1850, came from Barnstaple to superintend the laboratory in 1857. When Jacob Bell died in 1859, he left the business to Hills, who thus became sole proprietor. In 1870 Bell's was considerably enlarged and the laboratory extended and modernized, the work being carried out by Coffey, the laboratory engineer (of Coffey still fame); the photographs reproduced here (Plates III and IV) show the laboratory in 1871, and in one of these (Plate III) Hills may be seen at the left, while Gale appears in both; it is interesting to notice (on the right of Plate III and the left of Plate IV) a huge pan of solid tin, weighing about a ton, which fetched £250 when it was sold. Hills' name appeared on the first roll of members of the Pharmaceutical Society, and like his partner Jacob Bell, he was active in the work of the Society, serving as vice-president 1863-1868, treasurer 1868-1871 and president 1873-1876. He died in 1891, leaving a fund for a gift of books each year to the Periera Medallist and Jacob Bell Scholars, "in memory of Jacob Bell," the gift being known as the "Hills' Prize;" he also left a gift of books each year to the local branch of the Society in the town in which the British Pharmaceutical Conference meets, and a legacy to found the "Hills' Orphan Fund" for the purpose of sending orphans of members of the Pharmaceutical Society to orphan schools and asylums.

In 1871, after an apprenticeship in the provinces and experience in Berlin and Paris, Walter Hills, nephew of Thomas Hyde Hills, came into the business; he and Gale became partners on the death of the elder Hills and when Gale died in 1893, Walter Hills was the sole owner of Bell's. When the centenary of the founding of Bell's was celebrated in 1898, Walter Hills was serving his third consecutive term as president of the Pharmaceutical Society (1896-1899) and later acted as treasurer, so, in his connections with the Society, he was following in the footsteps of Jacob Bell and Thomas Hyde Hills. When the wholesale and retail parts of Bell's business were separated in 1908 and the latter, amalgamating with Croyden & Co., Ltd. (founded in 1832 by George Croyden who had worked at Bell's), became known as John Bell & Croyden, Ltd. and moved to 50 Wigmore Street, Walter Hills was chairman of the Board of Directors; in 1912 when the Wigmore Street pharmacy was doubled in size, the then Lord Mayor of London, Sir Thomas Boor Crosby, M.D., a distinguished surgeon, opened the new premises; on being welcomed by Walter Hills, he recalled the fact that as a young man he had visited Jacob Bell in Langham Place and remembered well his fine collection of pictures. In recent years Walter Hills has retired from business.

Some particulars regarding Bell's in the nineties have come into the writer's hands, and a few of these are set down here in the belief that they will be of interest to pharmacists of to-day. It is worthy of note that at this time the premises were arranged in just the same way as when Hunt painted his picture, that is, the laboratory was behind the shop and separated from it by a small counting-house and general office. The shop or pharmacy contained two long dispensing counters running its whole length, where prescriptions were made up, as they always had been, in full view of the customers; the walls were covered with "shop-rounds," or bottles containing the drugs, etc., necessary for dispensing. The staff here consisted of 11 dispensers, each having

his own section of the counters which were known as the "Boards;" the bottom-board man, or most junior assistant, was called "Stinker" because to him were given all prescriptions calling for pills containing asafœtida, valerian and other evil-smelling drugs; other assistants also had their own nick-names, for example the fourth was known as "Infusioneer," as one of his duties was to have ready a constant supply of fresh infusions. The laboratories were well equipped for making many galenical and pharmaceutical preparations; one room in the warehouse section was used for dispensing operations carried out by an assistant known as "Rex Pilularum," as he was responsible for dispensing pills on prescriptions calling for more than 6 dozen; he also maintained the supply of stock pills and prepared many pharmaceutical odds and ends, and was helped in this work by an assistant always alluded to as "Smike."

The staff was housed partly over the pharmacy in Oxford Street and partly in the upper premises of the warehouse section in Hills Place; all positions were "indoors" (*i. e.*, food and lodgings were provided) and salaries ranged from £25 to £80 a year, except for the superintendents whose pay was a little higher. The food was plain but plentiful, breakfast consisting of coffee and bread and butter only, except on one day each year, on which the whole of the staff assembled at 6:30 A.M. in the pharmacy to clean thoroughly the complete set of shop-rounds all at once, when eggs were served for breakfast as a special treat, and it is recorded that the assistants held competitions to see who could eat the greatest number. Beer was served at 11:00 A.M. and also at lunch and supper, eight barrels being always on the premises and four new ones ordered as soon as four were empty. A set of rules in force at this time in the shop and the house makes most interesting reading; rules for the shop number nine and are headed Promptitude, Attention, Order, Accuracy, Safety, Neatness, Delivery, Interference and Success in Business; the last is especially worthy of quotation: "9. *Success in Business.* A man's success depends on himself. To succeed a man must excel. To excel it is necessary to do one's best, whether working or playing. Anything worth doing is worth doing well. It is not every man who reaches the goal of his ambition; but every man succeeds who is determined to do so. Therefore, when you have made choice of your calling make it your pleasure, as well as your business. By so doing a man obtains his livelihood and independence, becomes respected, and a useful member of society. 'This, above all—To thine own self be true; And it must follow as the night the day, Thou canst not then be false to any man.' " In regard to the "Rules for House" it is amusing to note, among other things that "all lights in the bedrooms must be put out by 11:30 P.M.; and reading in bed by candlelight is strictly forbidden;" also that "it is requested that gentlemen will appear at the breakfast-table dressed for the day, in order that they may be at their respective duties punctually at 9:00 A.M."

After Gale's death in 1893, when J. R. Wretts, who had qualified in 1868 and been with the firm for many years, was manager of the shop, E. W. Lucas came from Hong-Kong to take charge of the laboratory; he was present when Macbeth, in 1897 or 1898 drew the charcoal sketch from which the etching (reproduced here, Plate V) was made as a companion to Hunt's picture; the artist worked very rapidly, putting in the laboratory first and then calling in the workmen one by one, saying, "I'll see if I can work your ugly mug in somewhere." Lucas still has the charcoal sketch in his possession. He is the author of the well-known "Practical Pharmacy" and also of "The Book of Prescriptions" and "The Book of Receipts;" he has been a member of the Board of Examiners of the Pharmaceutical Society and also of the Committee of Reference of the British Pharmacopœia. In 1904, he, Wretts and John Stuart Hills (son of Walter Hills; he had just come to the end of a distinguished career at the Society's School, where he was Salters Research Fellow 1903-1904) obtained interests in Bell's, and in 1908 on the separation of the wholesale and retail parts of the business, he went with John Stuart Hills to Southwark where the wholesale business was developed under the name of John Bell, Hills & Lucas; at the same time he was on the Board of Directors of John Bell & Croyden, Ltd.; recently (1930) he has retired from business.

In late years John Bell & Croyden, Ltd. have absorbed Langham Bros., dealers in fine chemicals and perfumery and Arnold & Sons, surgical instrument makers; in 1928 the amalgamation of Bell's with Savory & Moore's has linked up two historic pharmacies, the latter still standing in the same place in New Bond Street where it was founded in 1780. The new company includes among its directors E. T. Nethercoat, C.B.E., president of the Pharmaceutical Society 1922-1924, Arthur Ledsam Savory, sometime member of Council of the Pharmaceutical Society,

E. J. C. Savory, E. A. Umney and J. E. Saul, F.I.C., who has served as a member of the Board of Examiners of the Pharmaceutical Society. In connection with Savory & Moore's, it is noteworthy that Thomas Field Savory, who bought the business in 1797, invented Seidlitz Powders and patented them in 1815, and that at this time also Jenner's Absorbent Lozenges (invented by Dr. Edward Jenner of smallpox vaccination fame) were introduced and these are still sold by the firm; that John Savory (grandfather of Arthur Ledsam) helped to found the Pharmaceutical Society and served as vice-president 1843-1844 and president 1844-1848; that Dinneford & Co. was absorbed by the firm, this business being owned by Michael Carteighe, president of the Pharmaceutical Society 1882-1896, whose brother John was once a partner with him, John in his youth having served as an assistant to Michael Faraday at the Royal Institution. Godfrey & Cooke's business was also acquired by Savory & Moore's; this was founded in 1680 by Godfrey, who had previously served as an assistant in the laboratory of Robert Boyle, famous in the world of science for the establishment of Boyle's Law in 1660; Godfrey's grandsons sold out to Cooke and in 1818 William Ince entered the firm; he served the Pharmaceutical Society as president 1850-1851 and on his death in 1853 his son Joseph succeeded him in the business; the latter is best known for his book "Latin Grammar of Pharmacy," familiar to most pharmacy students, and for editing Daniel Hanbury's "Science Papers;" he became professor of Pharmacy in the Society's School in 1886 and remained there until 1896, having previously sold out Godfrey & Cooke's to Thomas Greenish, who was president of the Pharmaceutical Society 1880-1882, and president of the British Pharmaceutical Conference 1885-1886; his son, Henry George Greenish, is the present dean of the School of Pharmacy.

Jacob Bell's name will not be forgotten by pharmacists, if only on account of the "Jacob Bell Scholarships," founded in 1860 to "perpetuate his memory," established by the Pharmaceutical Society and endowed by subscription; the first of these were offered in 1861 and they have been awarded annually ever since, save for a lapse of one or two years during the Great War; since 1924 the two scholarships have been merged into one in order to conform to the changing conditions of pharmaceutical education. This scholarship gives the holder free education at the Society's School and a grant of money, as well as the "Hills Prize" of books, to which reference has already been made; to many a young fellow it has given the chance of his life; much is expected of the Bell Scholars and there is not often any reason for disappointment; many of them in later life have become famous in pharmacy or in other professions. It is interesting to read the list of Jacob Bell Scholars on the board in the Lecture Theatre at 17 Bloomsbury Square and pick out here and there some well-known names; it is impossible to refrain from mentioning a few here. The first Scholar was William Augustus Tilden in 1861; he became a demonstrator in the School under Dr. Atfield and in after life was famous as a chemist, being professor of Chemistry and dean of the Royal College of Science, London, professor emeritus of Chemistry in the Imperial College of Science and Technology, and author of "The Progress of Scientific Chemistry in Our Own Times," "Introduction to the Study of Chemical Philosophy," "Chemical Discovery and Invention in the Twentieth Century," "Famous Chemists—the Men and Their Work," etc.; he was knighted and made a Fellow of the Royal Society; he died in 1926. S. Plowman and A. P. Luff were Bell Scholars in 1872 and 1873, respectively; each in his turn won the Periera Medal and left pharmacy to enter the profession of medicine; the former became a surgeon, the latter at one time acted as Lecturer on Forensic Medicine to St. Mary's Hospital, London. One of the 1875 Bell Scholars was Henry George Greenish who, after leaving the School studied on the Continent, returned to the School in 1890 to become professor of *Materia Medica* and has remained there ever since, being appointed professor of Pharmaceutics in 1900 and later dean of the School, which offices he still holds; during his deanship the School has become a part of the University of London; he is a Fellow of the Linnean Society, has received the Hanbury Medal and holds the degree of Docteur (H.C.) de l'Université de Paris; he was Joint-Editor of the *British Pharmacopœia* 1914; he is much revered and beloved by the many hundreds of "Square" students who have come in contact with him. In 1880 F. C. J. Bird and J. O. Braithwaite were fellow Bell Scholars; both have been and still are active workers in connection with the British Pharmaceutical Conference; Braithwaite is best known as being, for many years, one of the editors of the *Year Book of Pharmacy*. Edmund White, one of the staunchest supporters the Pharmaceutical Society has ever had, was one of the Bell Scholars of 1886; he served on the Board of Examiners, was a member of Council of the Pharmaceutical

Society becoming president 1913-1918, and chairman of the British Pharmaceutical Conference 1923-1925; he was connected closely with all the activities of the Society until his death recently. In 1890, Edward Frank Harrison was a Bell Scholar; his name will always call to mind his work during the Great War, when, holding the rank of Lieutenant-Colonel and being Controller of Chemical Warfare, he invented the perfected Small Box Respirator, which will be gratefully remembered by every soldier; he died at the age of fifty from pneumonia aggravated by exposure to poison-gas, and on Nov. 2, 1921 a memorial to him was unveiled in the Examination Hall at 17 Bloomsbury Square by the then Secretary for War, Sir Laming Worthington-Evans. Dr. George Senter, now Principal of Birkbeck College of the University of London and a member of the Board of Examiners of the Pharmaceutical Society, was a Bell Scholar in 1895; in 1896 F. A. Upsher Smith held one of the Scholarships; he is well known to pharmacists in this country as the proprietor of a Digitalis Farm in Minneapolis. Thomas Tickle, John Evans and Horace Finnemore, Bell Scholars in 1892, 1897 and 1898, respectively, have all served on the Board of Examiners. C. H. Hampshire, a member of the Board of Examiners, who entered the medical profession and is now secretary of the British Pharmacopœia Commission, was one of the 1905 Scholars. In connection with the younger generation of Bell Scholars, it may be mentioned that F. Wokes (1912) and F. J. Dyer (1919) are working in the Pharmacological Laboratories of the Pharmaceutical Society, B. W. Melhuish (1916) is still on the staff of the Society's School and G. R. Boyes (1917) is now one of the secretaries to the British Pharmaceutical Conference; Hugh N. Linstead, secretary and registrar to the Pharmaceutical Society, was a 1921 Scholar; other Scholars hold positions in wholesale houses, research laboratories, schools of pharmacy, etc. More names could be cited did space permit; the writer of this article does not fail to remember with a sense of pride that she held one of the 1917 Scholarships, remaining at the Society's School until 1925; for this reason it has been a great pleasure to her to gather up the information set down here.

EX-PRESIDENTS OF AMERICAN PHARMACEUTICAL ASSOCIATION FROM BALTIMORE AS I REMEMBER THEM.*

BY DAVID M. R. CULBRETH, M.D.

Of the seventy-eight presidents that have served this ASSOCIATION in as many years, only six have been chosen, *ad interim*, from Baltimore—just one more than the number of her accredited intermittent visits. While selection is made through compliment and merit, usually at the place of meeting to carry duties for a year hence, there have been occasional departures, at least temporarily, owing to well-meaning efforts going awry, until predicated justice could prevail. Thus, while of this favored contingent, Messrs. Andrews, Moore and Charles E. Dohme, came into their own according to this precedent—at Baltimore meetings—Mr. Hancock was elected at Richmond to serve at Louisville, Mr. Roberts at Pittsburgh—for Providence, and Dr. Dunning at Rapid City, in advance—for Baltimore.

Even though the terms of these six gentlemen have an interrupted inclusiveness of seventy-five years, it so happens that the writer knew and associated intimately for years, in their mature manhood, with all except Mr. Andrews, who enjoyed a slightly antedated period. However, as a fact, he died a few months after I, a young man, reached Baltimore to make it my future home, when, and subsequently, I heard so much of his final illness, honorable career and exceptional record, that the feeling has always been of personal friendship, as well as—a true knowledge in the flesh. Although this review aims to include only the non-living—the first five—it is fitting to add that our present—president, Dr. Dunning, still young, capable and enthusiastic, has already contributed commendable activity in

* Read before Section on Historical Pharmacy, Baltimore meeting, May 1930.