

A concise historical sketch of the progress of pharmacy in Great Britain, from the time of its partial separation from the practice of medicine until the establishment of the Pharmaceutical society. Intended as an introduction to the Pharmaceutical journal / By Jacob Bell.

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A CONCISE
HISTORICAL SKETCH
OF THE
PROGRESS OF PHARMACY
IN GREAT BRITAIN,
FROM THE TIME OF
ITS PARTIAL SEPARATION FROM THE PRACTICE OF MEDICINE
UNTIL
THE ESTABLISHMENT OF
THE PHARMACEUTICAL SOCIETY.
INTENDED AS
AN INTRODUCTION
TO
THE PHARMACEUTICAL JOURNAL.

BY
JACOB BELL.

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HISTORICAL SKETCH

OF THE PROGRESS OF

PHARMACY IN GREAT BRITAIN.

At the period at which our history commences, Pharmacy was in the hands of the Physicians, who professed the healing art in all its branches, and prepared their medicines themselves, or superintended the preparation of them. The science of medicine was so little understood, and so imperfectly cultivated, that it was in general practised empirically, and was often confounded with sorcery and witchcraft. The Greek word, *Φάρμακew*, signifies either to practise witchcraft or to use medicine, and this acceptance of the term was acted upon in our own country as late as the 16th century. There were, therefore, persons of various classes, both men and women, who professed to cure disease, some by incantations; others, who considered that by their genius they were "cut out and configured for it;" and others, again, who had obtained a kind of traditional education from recognised Physicians, and who therefore constituted the medical profession.

But no laws existed for the protection of the public from ignorant practitioners. Indeed, it was difficult to discriminate between the different degrees of ignorance which prevailed: so much so, that it was not uncommon for patients to be placed in public thoroughfares, in the hope that some of the persons who happened to pass might be able to recommend a remedy from the result of their own experience, when afflicted with similar symptoms. The first act of parliament relating to the medical profession was passed in the year 1511, and is entitled "*An Act for the appointing of PHYSICIANS and SURGEONS.*"

The preamble is worded thus:

* "Forasmuch as the science and cunning of Physick and Surgery (to the perfect knowledge of which be requisite both great learning and ripe experience) is daily within this realm exercised by a great multitude of ignorant persons, of whom the greater part have no manner of insight in the same, nor in any other kind of learning; some also can read no letters on the

* 3 Henry VIII., c. 9.

book, so far forth that common artificers, as smiths, weavers, and women, boldly and accustomably take upon them great cures, and things of great difficulty, in the which they partly use sorcery and witchcraft, partly apply such medicines unto the disease as be very noxious, and nothing meet therefore, to the high displeasure of God, great infamy to the faculty, and the greivous hurt, damage, and destruction of many of the King's liege people ; most especially of them that cannot discern the uncunning from the cunning. Be it therefore (to the surety and comfort of all manner of people) by the authority of this present Parliament enacted, That no person within the city of London, nor within seven miles of the same, take upon him to exercise and occupy as a Physician or Surgeon, except he be first examined, approved, and admitted by the Bishop of London, or by the Dean of St. Paul's, for the time being, calling to him or them four Doctors of Physic, and for Surgery, other expert persons in that faculty : and for the first examination such as they shall think convenient, and afterward alway four of them that have been so approved. * * *

"That no person out of the said city and precinct of seven miles of the same, except he have been (as is aforesaid) approved in the same, take upon him to exercise and occupy as a Physician or Surgeon, in any diocess, within this realm, but if he be first examined and approved by the Bishop of the same diocess, or he being out of the diocess, by his vicar-general : either of them calling to them such expert persons in the said faculties, as their discretion shall think convenient". * * *

By this act the faculty of medicine was vested in one body of practitioners, who practised Medicine, Surgery, and Pharmacy. The Physicians' assistants were styled Apothecaries, and they, gradually acquiring information respecting the properties of drugs, began to transact business on their own account.

In the year 1518, Thomas Linacre, the Physician of Henry the Eighth, proposed the establishment of a College of Physicians, which was accomplished on the 23d of September of that year. The powers of this body were extended in the year 1540 : the Physicians were exonerated from the necessity of attendance on juries and parochial offices,† and were empowered to enter the houses of Apothecaries in London, "to search, view, and see the Apothecary-wares, drugs, and stuffs," and to destroy such as they found corrupt or unfit for use. In the same year the Barbers and Surgeons were united into one company, but the Surgeons were prohibited from shaving, and the Barbers were restricted from performing any surgical operations, except drawing teeth. The Physicians, however, were allowed to practise surgery.

The Surgeons having abused their privileges, an act was passed, in the year 1542, of which the following is the substance :

Whereas in the Parliament holden at Westminster, in the third year of the King's Most Gracious Reign, amongst other things, for the avoiding of sorceries, witchcrafts, and other inconveniences, it was enacted, That no person within the City of London, nor within seven miles of the same

* Dr. Goodall's History of the College of Physicians.

† The Surgeons had been exonerated from these duties in the year 1513.

should take upon him to exercise and occupy as Physician and Surgeon, except he be first examined, admitted, and approved by the Bishop of London, &c. * * : Sithence the making of which said Act, the Company and Fellowship of Surgeons of London, minding onely their owne lucres, and nothing the profit or ease of the diseased or patient, have sued, troubled, and vexed divers honest persons, as well men as women, whom God hath endued with the knowledge of the nature, kind, and operation of certain herbs, roots, and waters, and the using and ministering of them, to such as have been pained with customable diseases, as women's breasts being sore, a pin and the web in the eye, uncomes of the hands, scaldings, burnings, sore mouths, the stone, stranguary, saucelin, and morpew, and such other like diseases. * * * And yet the said persons have not taken anything for their pains or cunning. * * In consideration whereof, and for the ease, comfort, succour, help, relief, and health of the King's poor subjects, inhabitants of this his realm, now pained or diseased, or that hereafter shall be pained or diseased, Be it ordained, &c., that at all time from henceforth it shall be lawfull to every person being the King's subject, having knowledge and experience of the nature of herbs, roots, and waters, &c., to use and minister * * according to their cunning, experience, and knowledge * * the aforesaid statute * * or any other act notwithstanding."

This act is understood to apply to the practice of medicine without remuneration, and accordingly it was not uncommon for empirics to evade the law by pretending to practise gratuitously. This, however, was not always successful; and Dr. Goodall's *History of the PROCEEDINGS against EMPIRICS* (published in 1684) contains an account of numerous prosecutions, in which the law was put in force in a summary manner.

In the year 1552, *Grig*, a poulterer, in Surrey, "taken among the people for a prophet, in curing divers diseases by words and prayers, and saying he would take no money," was set on a scaffold in the town of Croydon, with a paper on his breast, declaring him to be an impostor. He was afterwards set on a pillory in Southwark.

In the reign of Queen Mary, a great number of empirical impostors were prosecuted and punished, not only in London but in other parts of the country; and during the reign of Queen Elizabeth, these prosecutions continued, the delinquents being fined various sums from £5 to £20, and in many cases being imprisoned. Some of these quacks were patronised by persons of rank, who wrote to the President of the College on their behalf. Sir Francis Walsingham, secretary of state, interceded on behalf of "*Margaret Kennix*, an outlandish ignorant sorry woman," but the College refused to remit the sentence (1581).

John Booffeat (1583) was liberated from prison on the intercession of a person of quality, upon condition that he would submit to any penalty the College might inflict, if he ever practised again.

Paul Fairfax (1588) was prosecuted for cheating the people by puffing the pretended virtues of a water which he called *Aqua Cælestis*. He was fined £5 and imprisoned. The Lord

Chamberlain addressed the College on his behalf, but to no purpose.

Paul Buck (1593), having been imprisoned for illegal practice, obtained letters of recommendation from Sir Francis Walsingham, the Lord High Admiral Howard, and Lord Essex.

John Lumkin, a surgeon (1593), being convicted of *mala praxis* on several patients, and being committed to prison, *propter malam praxin, et immodestos mores*, obtained letters from the Archbishop of Canterbury, and the Dean of Rochester, and was released on bail.

In the year 1552, the question was argued before the lord mayor, whether Surgeons might give inward medicines, and the president of the College of Physicians was summoned to give his opinion, in accordance with which, the lord mayor decided that it was illegal for Surgeons to practise medicine. The College of Physicians issued a letter in 1595, prohibiting their interference with medical practice.

The question was again tried in the cases of *Read* and *Jenkins*, in 1595, when the chief justice decided,

"That no Surgeon, as a Surgeon, might practise physic for any disease;" and that "no man, though never so learned a Physician or Doctour, might practise in London, or within seven miles, without the college licence."

In the year 1553, the College of Physicians obtained a new act *, in which their former powers † were confirmed and enlarged, and in which it is stated that "the four censors, or any three of them, shall have authority to examine, survey, govern, correct, and punish all and singular Physicians and practisers in the faculty of physic, Apothecaries, Druggists, Distillers, and sellers of waters and oils, and preparers of chemical medicines," "according as the nature of his or their offences may seem to require."

In 1602, *Francis Anthony* was fined several times and imprisoned, for persisting in the administration of his *Aurum Potabile*, with which he occasioned the death of many patients.

Dr. Alexander Leighton (1627) was interdicted from practice, being found unqualified, on examination by the president and censors; he persisted in practice, was arrested, and censured in the Star chamber and lost his ears. *Ellin Rix* undertook to cure a boy of consumption in fourteen days for £3. "She gave him purging drinks once a day for seven days together, and twice a day for 14 days more." The boy died a fortnight after. She was fined £5 and imprisoned 14 days.

Mr. Briscoe, an apothecary, (1634) appeared before the president and censors, being accused of "falsifying a bill," having

* 1 Mary, c. 9.

† 32 Henry VIII., c. 40 (1540).

administered 2 drachms of *troch. alkakengi cum opio* instead of *troch. gordonii*, as prescribed by Dr. Johnson, without asking the Doctor's opinion, for which offence he was fined 5 marques and expelled the company.

It is uncertain at what period the Physicians gave up the practice of preparing their own medicines; we are informed, in a work entitled "*Short Answers to Tentamen Medicinale*" (1704).

"'Tis very well known there was no such thing as a Company of Apothecaries in the beginning of King James the First's reign, but what drugs and medicines were then in use, were sold in common by the grocers; and as for the preparing and compounding of them, that the Physicians principally took care of themselves. But this growing too servile and laborious a business, and no other means being likely to be found out for easing themselves of it, but by lopping off a considerable number of grocers who had mostly been brought up that way, and constituting them a company by themselves, wholly to be employed in the business of pharmacy, in selling of drugs and preparing and compounding of medicines, according to the Physicians' orders and directions; in order to this they obtained a charter for them to the number of a hundred and fourteen."

This number coincides with the number of Physicians who were then in practice in London.

The Apothecaries (who had been incorporated with the Grocers into one company in the year 1606) were separated, and obtained the charter above mentioned in 1617. It was enacted at the same time that no grocer should keep an Apothecary's shop, and that no Surgeon should sell medicines. The power of searching the shops of Apothecaries within seven miles of London, and examining their drugs, was also vested in the chartered body.

Soon after the Apothecaries were formed into a Society, they took into their serious consideration the frauds and artifices practised by the Grocers and Druggists from whom they obtained their drugs; and in order to remedy this evil, they established a dispensary in the year 1623, for the purpose of making some of the most important preparations for the use of their own members. This institution was placed under the inspection and superintendence of a Committee of Apothecaries, and was conducted, in the first instance, on a small scale, being confined to the manufacture of a limited number of preparations.

The first Pharmacopœia was published by the College of Physicians in the year 1618. This was the first step towards reducing the processes of Pharmacy to a regular standard for the guidance of dispensers of medicine. It was, however, a very imperfect production. Subsequent editions have been published by the college in 1621, 1632, 1639, 1650, 1677, 1721, 1746, 1788, 1809, 1815, 1824, and 1836.

The medicinal compounds formerly employed were chiefly

empirical nostrums, or heterogeneous mixtures of substances, some of which neutralized others, and which were selected without any reference to scientific principles. One of the most striking instances of this practice is to be found in the Mithridate, which was a compound of seventy-two ingredients; and in looking over the ancient works on Pharmacy, a great variety of ridiculous formulæ present the same peculiarity. The science of Chemistry was so little advanced, that the real composition of ordinary remedies was seldom understood, and in many cases different virtues were attributed to the same substance, according to the source from whence it was obtained. Thus crab's eyes, prepared pearls, oystershells, and burnt hartshorn, were severally recommended as specifics in certain cases, the qualities of these remedies being supposed to be essentially different. Snails, vipers, the urine of men and animals, calculous concretions, various portions of criminals, as the thigh bone of a hanged man, and many other equally absurd remedies, were extolled as specifics for a variety of disorders.

Culpeper, in his translation of the Pharmacopœia (1653), ridicules the catalogue of remedies derived from the animal kingdom, which were at that time enumerated in the Pharmacopœia of the college. The following is a portion of a list which will serve as a specimen, with Culpeper's remarks in parentheses.

"*The fat, grease, or suet of a duck, goose, eel, bore, heron, thymallos (if you know where to get it), dog, capon, beaver, wild cat, stork, hedgehog, hen, man, lyon, hare, kite, or jack (if they have any fat, I am persuaded 'tis worth twelve-pence the grain), wolf, mouse of the mountains (If you can catch them), pardal, hog, serpent, badger, bear, fox, vultur (if you can catch them), album Græcum, east and west benzoar, stone taken out of a man's bladder, viper's flesh, the brain of hares and sparrows, the rennet of a lamb, kid, hare, and a calf and a horse too (quoth the colledg.) [They should have put the rennet of an ass to make medicine for their addle brains.] The excrement of a goose, of a dog, of a goat, of pigeons, of a stone horse, of swallows, of men, of women, of mice, of peacocks," &c. &c.*

Although Culpeper abuses the college for inserting this absurd catalogue of remedies in their Pharmacopœia, he is not free from superstition himself, as he tells us, that "Bees being burnt to ashes, and a ly made with the ashes trimly decks a bald head, being washed with it." He also extols snails, as a cure for consumption, but blames the college for directing the slime to be separated from them with salt or bran before they are used, and supports his opinion by saying, that "Man being made of the slime of the earth, the slimy substance recovers him when he is wasted."

In describing *verbena* he says, "It is hot and dry, a great opener, cleanser, and healer, it helps the yellow jaundice, defects in the reins and bladder, and pains in the head, if it be but bruised and hung about the neck."

Of scammony, he says, "*Scammony*, or *diagridium*, call it by which name you please, is a desperate purge, hurtful to the body by reason of its heat, windiness, corroding or knawing, and violence of working. I should advise my country to let it alone; 'twill gnaw their bodyes as fast as doctors gnaw their purses."

Culpeper says, that "The head of a cole-black cat being burnt to ashes in a new pot, and some of the ashes blown into the eye every day, helps such as have a skin growing over their sight. If there happen any inflammation, moisten an oak leaf in water and lay it over the eye."

The compound waters, syrups, electuaries, and other preparations used at that time contain a vast number of herbs, flowers, juices, roots, &c., which are now obsolete, being found to be quite inert, and the properties ascribed to these remedies had reference, in many instances, to superstitious notions which belonged to the age. Culpeper, in the title-page of his *Pharmacopœia*, styles himself "*Nich. Culpeper, Gent., Student in Physick and Astrology*," and in reading the work it is difficult to determine which science preponderates.

Notwithstanding the superstitious prejudices which prevail in the work, we see nevertheless in many passages an evidence of a close observance of nature, and just reasoning; for instance, in the translator's preface, we are told that "The time to gather all roots is before the herbs run up to seed." "Herbs are to be gathered when they are fullest of juice, which is before they run up to seed: and if you gather them in a hot sunshine day, they will not be so subject to putrifie. The best way to dry them is in the sun, according to Dr. REASON, though not according to Dr. TRADITION. Let flowers be gathered when they are in their prime, in a sunshine day, and dried in the sun. Let the seeds be perfectly ripe before they are gathered."

"In boyling syrups," Culpeper says, "have a great care of their just consistence, for if you boyl them too much they will candy, if too little, they will sour."

The *Materia Medica* was divided into two classes, Chymicals and Galenicals. The "Chymical Medicins" were of mineral origin, and prepared by fire; the Galenicals comprised the herbs, roots, and other vegetable or animal substances. The trade in these articles was also distinct, and Chymists are alluded to in works of the date now under consideration, as being a class of men who prepared these mineral compounds for the use of the Apothecaries.

THE TRIUMPHANT CHARIOT OF ANTIMONY, by Basil Valentine, a work published in 1678, contains a curious account of that metal, with a great variety of processes for reducing it into a proper state for medicinal use. "This unlocking and preparing of mineral antimony," the author observes, "is performed

by divers methods and ways, by the disposure and governance of the fire, with manifold labour of the hands, whence proceeds the operation, virtue, power, and colour of the medicine itself."

Antimony had hitherto been considered a poison, destitute of any utility, and was generally denounced by the profession; but Basil Valentine undertook to prove that it is "more than any one simple of nature able to subdue and expel infinite diseases." He says, "The life of no one man is sufficient for him to learn all the mysteries thereof;" and that "when it is rightly prepared, its medicinal virtue consumes all noxious humours, purifies the blood in the highest degree, and performs all that may be effected by *aurum potabile*."

In tracing the origin of customs which are involved in the mist of antiquity, we are sometimes enabled to draw inferences, in cases where there is no very definite record of facts. In this respect, the following extracts from a pamphlet, published in the year 1671, entitled "*The Wisdom of the Nation is Foolishness*," serve to throw some light upon the subject.

"Dr. Merret, a collegiate physician of London, and a practiser thirty years with Apothecaries, gives this account of them in his book lately put forth (page 8): They use medicines quite contrary to the prescriptions—myrtle leaves for senna, &c. * * * They falsify the grand compositions of the London Dispensatory * * * (page 9). 'Tis very common for them to load medicines with honey, and other cheaper ingredients, and to leave out in whole or in part those of greater value * * * Such CHYMISTS which sell preparations honestly made, complain that few Apothecaries will go to the price of them * * * All the drugs imported into England sooner or later are sold or made into medicines, although they have lain by years, with the MERCHANT, DRUGGIST, and APOTHECARY, before they are used."

Chemists are alluded to in a quaint poem, published in the year 1680, of which one stanza will serve as a specimen:

"'Mongst all professions in the town,
Held most in renown,
From th' sword to the gown,
The upstart Chymist rules the roast;
For he with his pill,
Does ev'n what he will,
Employing his skill
Good subjects to kill,
That he of his dangerous art may boast.
O 'tis the Chymist, that man of the fire,
Who, by his black art,
Does soul and body part;
He smokes us, and choaks us,
And leaves us like Dun in the mire."

The following is an extract from an advertisement published in the year 1686:

"GAZA CHYMICA.

"A magazine or storehouse of choice chymical medicines, faithfully prepared in my laboratory, at the sign of Hermes Trismegistus, in Watlin Street, London—by me, George Wilson, Philo-Chym."

A house and shop, with a laboratory, were built on the Bedford estate, in the year 1706, by Ambrose Godfrey Hanckwitz, who had carried on business as a chymist in the neighbourhood since 1680. He was a maker of phosphorus and other chymicals, which were rare at that period, and which he sold in different parts of the country during his travels. His laboratory was a fashionable resort in the afternoon, on certain occasions, when he performed popular experiments for the amusement of his friends. It opened with glass-doors into a garden, which extended as far as the Strand, but which is now built upon. Four curious old prints of the laboratory in its former state, are in the possession of its present proprietors, Messrs. Godfrey and Cooke, of Southampton Street, Covent Garden, also a portrait of Ambrose Godfrey Hanckwitz, engraved by George Vertue (1718), which he distributed among his customers as a keepsake.

The merchants and druggists, being a section of the grocer's company, merely sold articles in the raw or unprepared state, and the Chemists (who were not incorporated) took upon themselves the duty of preparing those medicines which required the aid of fire, and which were chiefly, if not entirely, minerals, earths, or preparations of the metals; and it is probable that the class alluded to derived their origin from the alchemists. It is unnecessary here to enter fully into the history of the alchemists, which would lead us into a series of details too voluminous for our present purpose. We need only observe, that their lives were devoted to the most persevering and laborious researches, undertaken in the hope of discovering an imaginary treasure, the *elixir vitæ* or *philosopher's stone*, from which they expected to obtain the power of transmuting the baser metals into gold, and also to prolong life.

M. Dumas gives the following as the process recommended by Raymond Lulle, who was born in 1235:

"To make the *elixir of the sages*, or the *philosopher's stone* (and by this word *stone* the alchemists did not mean literally a stone, but a certain compound having the power of multiplying gold, and to which they almost always attributed a red colour), to make the *elixir of the sages*, take the *mercury of philosophers* (lead), calcine it until it is transformed into a *green lion* (massicot); after it has undergone this change, calcine it again, until it becomes a *red lion* (minium). Digest in a sand-bath this *red lion* with *acid spirit of grapes* (vinegar), evaporate this product, and the mercury will be converted into a kind of *gum* (acetate of lead) which may be cut with a knife: put this gummy matter into a luted cucurbit and distil it with heat. You will obtain an insipid phlegm, then spirit, and red drops. Cymmerian shades will cover the cucurbit with their sombre veil, and you will find in the interior a true dragon, for he eats his tail (*i. e.* the distilled liquor dissolves the residuum). Take this black dragon, break him on a stone, and touch him with red charcoal: he will burn, and assuming a glorious yellow colour, he will reproduce the *green lion*. Make him swallow his tail and

distil this product again. Lastly, rectify carefully and you will see appear *burning water* (pyro-acetic spirit) and *human blood*.”*

This substance, called by the alchymist *human blood*, is a reddish-brown oil, which is formed during the distillation of the acetic acid in the above process. This oil has the property of precipitating gold, in the metallic state, from solutions containing that metal; which property probably gave rise to an idea that it possessed the virtues which were so much desired. It wants, however, one very important property; namely, that of precipitating gold when there is none of that metal in the solution.

The Society of Apothecaries, which was formed in 1617, continued to prosper; and in the year 1671, they added a Chemical Laboratory to the Dispensary, which had been instituted in 1623. This was done by subscription, and the object contemplated in it was the preparation of chemicals for the use of the subscribers. It had been found no less difficult to obtain this class of substances in a state of purity, than the ordinary drugs which were sold by the Merchants and Grocers, and by thus uniting in one establishment the preparations of “Chemicals” and “Galenicals,” the Apothecaries opened out a new field of research to the members of their body, from which important results have arisen. The institution was, in the first instance, conducted on a small scale, commensurate with the limited means and the purpose for which it was designed; but the superior quality of the articles prepared by this Company of Apothecaries, led to an application (in 1682) on the part of other persons for a participation in the advantage.

We are not informed how soon this request was complied with, but within a few years the Company became a trading body, and supplied any customers who came in their way.

About this period, Prince George of Denmark, the Lord High Admiral, contracted with the Company to furnish the Royal Navy with Drugs and Chemicals; and the increase in the demand rendered a considerable extension of premises and apparatus necessary, which was done by fresh subscriptions of large amount. By this means, the establishment became converted into a wholesale drug warehouse and manufactory, and although the original subscribers did not at first realize much if any pecuniary advantage, they laid the foundation for a very lucrative concern.

Bate’s Dispensatory, or, as it is usually termed, the *Pharmacopæia Bateana*, was published in 1691. It is arranged in three

* *Leçons sur la Philosophie Chimique.* Par M. Dumas, 1837. For an outline of the History of the Alchemy and the Alchemists, see *Histoire de la Chimie depuis les temps les plus reculés jusqu’à notre époque.* Par Le Dr. Ferd Hoefer. Tome Premier, 1842.

divisions : 1. Compound Chymick Internals ; 2. Compound Galenick Internals ; 3. Compound Externals. This work is curious on account of the mixture which it displays of laborious research and superstitious ignorance peculiar to the age.

In Quincey's "New Dispensatory," which enjoyed great celebrity, a different arrangement is adopted ; the preparations being generally classified according to their effects, and the author enters at some length into the subject of therapeutics. The tenth edition was published in 1736.

In the year 1694, Apothecaries were exempted from serving the offices of constable, scavenger, and other parish duties, and from attendance on juries. By this time we are informed that their number had increased from 114 to nearly 1000. They had become a very influential body ; and by practising medicine as well as Pharmacy, they excited the jealousy of the Physicians, who suffered materially from this encroachment, and endeavoured to reduce their rivals to their original condition, of grocers or vendors of drugs. The contest rose to a great height ; on one side it was alleged that the improvement which had taken place among the Apothecaries was a great benefit to the public, and that the Physicians, by endeavouring to restrain them, were undoing what the labour of their predecessors had accomplished ; while the other party animadverted on the extortionate charges of the Apothecaries, and the loss which the public sustained in being deprived of the advantage of the best advice in many cases, for which it was impossible to pay both the Physician and the Apothecary.

The evil was felt especially by the poor, and in order to meet the emergency, some of the Physicians united together in the establishment of dispensaries, where they supplied medicines on reasonable terms, employing assistants to dispense them under their own superintendence.

The following is a copy of an instrument subscribed by the President, Censors, most of the Elects, Senior Fellows, Candidates, &c., of the College of Physicians, in relation to the sick poor :—

"Whereas the several orders of the College of Physicians, London, for prescribing medicines gratis to the poor sick of the cities of London and Westminster, and parts adjacent, as also the proposals made by the said College to the Lord Mayor, Court of Aldermen, and Common Council of London, in pursuance thereof, have hitherto been ineffectual, for that no method hath been taken to furnish the poor with medicines at low and reasonable rates : we, therefore, whose names are hereunder written, Fellows or Members of the said College, being willing effectually to promote so great a charity, by the counsel and good liking of the President and College, declared in their Comitia, hereby (to wit, each of us severally and apart, and not the one for the other of us) do oblige ourselves to pay to Dr. Thomas Burwell, Fellow and Elect of the said College, the sum of Ten Pounds a-piece of lawful

money of England, by such proportions, and at such times, as to the major part of the Subscribers here shall seem most convenient: which money when received by the said Dr. Thomas Burwell, is to be by him expended in preparing and delivering medicines to the poor at their intrinsic value, in such manner, and at such times, and by such orders and directions, as by the major part of the Subscribers hereto in writing shall be hereafter appointed and directed for that purpose. In witness whereof we have hereunto set our hands and seals, this twenty-second day of December, 1696."

This document was published with fifty-three signatures and the following note:—

"The design of printing the Subscribers' names is to show, that the late undertaking has the sanction of a College act: and that it is not a project carried on by five or six Members, as those that oppose it would unjustly insinuate."

Three dispensaries were established, one at the Physicians' college in Warwick Lane; another in St. Martin's Lane, Westminster; and a third in St. Peter's Alley, Cornhill. They came into operation about the beginning of February, 1697, and were soon very generally resorted to for the preparation of Physicians' prescriptions, or "bills," as they were then termed, and also for the sale of medicines by retail.

The establishment of these institutions gave great offence to the Apothecaries, whose feelings on the occasion are thus expressed in the words of Garth, in his "Dispensary":—

"Our manufactures now the Doctors sell,
And their intrinsick value meanly tell;
Nay, they discover too (their spite is such)
That health, than crowns more valued, costs not much;
Whilst we must shape our conduct by these rules,
To cheat as tradesmen, or to starve as fools."

A violent contest arose, and pamphlets were published on both sides of the question. It was asserted by the Apothecaries, that the assistants employed at the dispensaries were unqualified—that the drugs were of bad quality, and the management in other respects defective. As a contrast to these abuses, the education and usefulness of the Apothecaries were insisted on in terms like the following:—

"Every Apothecary has eight years in his apprenticeship, by his own observation, to acquaint himself with drugs and plants, by the frequent use of them in the shops, besides often visiting the markets and physic-gardens; and several set days in the summer, the Company have to go into the country, on purpose to make acquaintance with all the vegetable tribes, the seniors, and more experienced, instructing the juniors. Then there is an elaboratory at their hall, open to all the Company, where they may see all the necessary processes of the chemical preparations, by which the different natures, &c., of bodies are laid open."

The following are the "*reasons*" which the Physicians gave "*for sending their wealthy patients, as well as the poor, to the dispensaries for their medicines:*"

"First. Because the Physicians, prescribing for them, were assured, that the medicines there were undoubtedly the best.

"Secondly. Because many excellent remedies are there deposited, which have never yet been trusted in the Apothecaries' shops.

"Thirdly. Because the Physician was not obliged to prostitute his honour and conscience by overloading his patient, to oblige a craving Apothecary, or run the risk of being undermined in his reputation by slanderous suggestions, for not submitting to be the Apothecaries' under-pickpocket.

"Lastly. Because he could serve his patient, quantity for quantity, and quality for quality, fifteen shillings in the pound cheaper than anywhere else: which is a thrift the greatest man that does not love to be cheated need not be ashamed of."

In corroboration of the justice of these allegations, with reference to the charges of Apothecaries, and the quantity of medicine they administered, an instance is quoted in the pamphlet above mentioned (*"The Wisdom of the Nation is Foolishness"*), and some of the items are enumerated.

"Apothecary's bill for attending Mr. Dalby, of Ludgate Hill, five days, total amount, £17 2s. 10d."

The following are the items of medicines for *one day* :

August 12th.	s.	d.		s.	d.
An emulsion	4	6	Another bolus	2	6
A mucilage	3	4	Another draught	2	4
Gelly of hartshorn	4	0	A glass of cordial spirits	3	6
Plaster to dress blister	1	0	Blistering plaster to the arms	5	0
An emollient glisten	2	6	The same to the wrists	5	0
An ivory pipe armed	1	0	Two boluses again	5	0
A cordial bolus	2	6	Two draughts again	4	8
The same again	2	6	Another emulsion	4	6
A cordial draught	2	4	Another pearl julep	4	6
The same again	2	4			

This is quoted, not as an isolated case, but as an illustration of the practice of Apothecaries when attending patients of the higher classes.

Dr. Pitt, in a book entitled "*The Craft and Frauds of Physic exposed*" (1703) states,

"The *Dispensary* at the *College*, where all the preparations are made, and distributed to its now two branches, in *St. Martin's Lane, Westminster*, and *St. Peter's Alley, in Cornhill*, may probably make up yearly twenty thousand prescriptions. The doses of the electuaries, juleps, pills, &c. one with the other, may be about a penny a piece, though every the most useful drug, though of the highest prices, is in every composition. There never was, or ever will be, the least profit, beyond the necessary expense of servants, &c."

Dr. Pitt observes, in his preface, that when the abuses in the profession are complained of,

"The old usually answer, that they are ashamed to own the villainy of their long former bills, by reforming their practice now. Others tell you that they'll leave physic as they found it, and not give themselves the trouble to treat the sick more faithfully. There are of the confederates who have said, that their scandalous profession would not last above four years, being every day more and more suspected, that they must make haste by venturing largely, to secure something by that time.

"But the affair is now laid clearly before you : in your judgment of it,

you are not capable of any error or fallacy. You see by the prices of the Dispensary, which are the just prices of the best medicines of the shop. You may observe by their practice and more certain success, that two or three medicines every day, at the value of as many shillings, overcome those diseases, which the more numerous aggravate to the death of the patient in all the difficult and dangerous cases. You may conclude from the whole, that this is the greatest instance and degree of madness, to rely on any advice, when the fee is procured by the multitude of medicines obtruded on all the diseases in all the constitutions.

"We know an Apothecary who over night appointed his servant to make ready twenty boles out of one pot, and twenty draughts out of one glass. These he conveyed to his customers the next morning, to the old and young, to the male and female, without distinction, and promised a new supply in the afternoon."

Another argument advanced by Dr. Pitt in favour of the Dispensaries is this :

"When the Apothecary deserts his station, is always abroad, and leaves the compounding part to his young unexperienced apprentice, who cannot avoid sometimes misusing one thing for another, by which errors very many are known to have lost their lives, you will allow that the people and the College shall reasonably provide for the safety of themselves and their patients."

Dr. Pitt exposes the absurd notions which at that time prevailed respecting the supposed virtues of many inert substances ; as, for instance, the Bezoar stone, which, he says, "has held its name and reputation almost sacred with us, though exploded long since in almost all other parts of Europe."

His observations on the "*Chymical medicins*" would almost apply to the homœopathic doses now in fashion.

"Their uses are very considerable to amuse the minds of the people with an assured expectation of relief from the magnify'd pretended powers of the preparations by fire* against all the feebleness of the spirits, and the last concluding coldness of death. And their titles are very necessary to keep up the fallacy of the dearness of medicins : every chymical grain or drop are the bezoar and the pearl, to deceive the people into an opinion of their value."

"The profession has sunk into the craft of deceiving and amusing and making profit by new medicines, or preparations brought into fashion, and highly esteemed, as long as the mode of crying them up shall last."

These assertions of Dr. Pitt, and other allegations of a similar nature against the Apothecaries, were answered by an Apothecary, in a small work above alluded to, entitled *TENTAMEN MEDICINALE, or an Enquiry into the Differences between DISPENSARIANS and APOTHECARIES, wherein the latter are proved capable of a skilful composition of Medicines, and a rational practice of Physick, to which are added some PROPOSALS to prevent their future increase.* (1704).

Among other arguments, it is said, that

* Homœopathically, for "fire" read "friction in a mortar." See p. 94.

"The Physicians' directions in their bills, or dispensatory, are not sufficient to instruct any one in the true composition of medicines there prescribed, unless he first be thoroughly acquainted with the nature and qualitys of simple bodys, and qualify'd with most parts of knowledge necessary to one as a Physician. From whence it may justly be infer'd, that he who is accomplished for a good Apothecary, is upon the borders of making a good Physician."

In answer to the four "*Reasons*" above quoted, in favour of the Dispensaries, it is stated, that it is absurd to suppose that the Physicians can make their medicines better than the Apothecaries, since they devote so much less time to this pursuit; that "when a Physician has got a guinea for his visit, it seldom much concerns his honour or conscience, how the Apothecary shall get a shilling for his medicines;" and that the assertions respecting the sophistication of drugs by Apothecaries, are unjust and unfounded exaggerations.

The plan for preventing the further increase of Apothecaries, consisted in the institution of a strict examination of apprentices in Latin and Greek, public lectures at the hall, instruction in practical Pharmacy, and an examination at the close of apprenticeship, prior to the granting of a licence to practise as an Apothecary.

In another pamphlet, entitled "*The Necessity and Usefulness of the DISPENSARIES, lately set up by the College of Physicians in London, for the use of the SICK POOR, together with an Answer to all the objections rais'd against them by the APOTHECARIES, or others*" (1702), it is stated, that the Physicians were obliged to send their wealthy patients to the dispensaries in self-defence, because the Apothecaries entered into a combination to denounce all those who had subscribed to those institutions, and recommend others in their stead; that they purposely sent "ill-prepar'd medecins," in order "to make the patients question the Physicians' skill," and that they sometimes continued to keep patients in their own hands, even when labouring under dangerous disorders; and that, therefore, they required some check. It is also said, that the patients complained of the dearness of medicines sold by Apothecaries; as, for instance, when an ounce of a powder, value less than a shilling, was ordered in half drachm doses, "yet the Apothecary, by officiously dividing it into sixteen papers, would make 3s. of it, viz. 6d. a paper." Another fact is mentioned, namely, that some "persons of condition" attended the dispensaries in *formâ pauperum*, and thus imposed upon the Physicians. (In this respect human nature still displays the same peculiarities, as we hear occasionally of patients leaving their carriages round the corner, while they call for the advice of a Physician who prescribes *gratis*).

The author of the above pamphlet answers the argument "that

Physicians ought not to sell physic, but only to prescribe it," by saying, "that Apothecaries ought not to give advice but only to sell medicines."

Among the conflicting statements published on the subject of this controversy, it is not easy to arrive at the truth, but we may infer the prevalence of considerable exaggeration on both sides. It is clear, however, that the dispensaries prospered and enjoyed the patronage of the public; and we have reason to believe that the Assistants employed and instructed by the Physicians at these institutions, became dispensing Chemists on their own account; and that some of the Apothecaries, who found their craft in danger, followed the example: *from which source we may date the origin of the CHEMISTS and DRUGGISTS.*

It was not likely that the College of Physicians, or a section of the college, would for any length of time continue to conduct or superintend shops of this description. They had commenced the undertaking from the double motive of enabling the public to obtain drugs at a reasonable rate, and at the same time of gaining for themselves an advantage over the Apothecaries, who had become formidable rivals. Having succeeded in these objects, and a class of men having been raised up to perform the drudgery of the business, it might naturally be expected that they would be glad to be relieved from any further mercantile responsibility; and that the parties whom they had employed as dispensers would be no less anxious to assume the position of masters.

In the year 1723, the College of Physicians was again empowered by Act of Parliament* to visit and examine the shops of Apothecaries, attended by the Master and Wardens of the company of Grocers, or one of them.

This Act was entitled, "*An Act for the better viewing, searching, and examining all Drugs, Medicines, Waters, Oils, Compositions, used or to be used for Medicines, in all Places where the same shall be exposed to Sale, or kept for that Purpose, within the City of London, and suburbs thereof, or within seven miles circuit of the said city.*"

Some of the circumstances relating to this Act are rather curious. James Goodwin, a chemist and apothecary, whose business had for many years been extensive, made overtures, in the year 1721, to the Royal African Company, to supply them with drugs. Two apothecaries (Markham, of Paternoster Row, and Matthews, of the Poultry), who had been in the habit of supplying the society, by the recommendation of Dr. Levit, applied to the doctor to assist them in opposing this inroad on their privilege. Dr. Levit, therefore, "undertook to destroy Goodwin, and to prove,

* 10 George I., c. 22.

that he was an ignorant, illiterate person; and that he neither knew a drug when he saw it, nor what drugs were put into a composition." But Goodwin being summoned before the company, so fully proved the doctor's ignorance and his own integrity, that he obtained the order for the supply of drugs. On this, Dr. Levit and the Apothecaries vowed vengeance, and excited other Physicians to unite with them in applying for an Act of Parliament, conferring upon them additional powers in searching shops. Among other Physicians, Dr. Shadwell joined with much spirit in this enterprize, having taken offence at Goodwin for applying to him for the payment of a debt due for medicines.

On the 10th of June, 1724 (after the Act had passed), Dr. Arbuthnot, Dr. Bale, and Dr. Plumtree, called at the shop of Goodwin, and having ascertained that he was not at home, they commenced the destruction of his goods, turning out one drug after another, and burning them in the street. Having found a parcel of old plasters and other things, which had returned from a voyage, in a chest sent to be re-filled, these they sealed up, and sent to the college. They then went to another shop, belonging to Goodwin, in Charles Street, Westminster, and condemned every article which came into their hands. On the 13th, 14th, 15th, and 16th of June, paragraphs were inserted in several public papers, of which the following is a copy:

"On Wednesday last, the four *Censors* of the *College of Physicians*, and the two Wardens of the *Apothecaries' Company*, visited several *Chymists*, *Druggists*, and *Apothecaries' shops*, pursuant to the authority granted them by a late Act of Parliament, and we hear they burnt several drugs and other things in the *Medicinal Faculty*, before the doors of Mr. Goodwin, chymist, facing the *Haymarket*, the corner of *Pall Mall*," &c.

It is stated as a remarkable circumstance, that Goodwin was the only person whose drugs were condemned on this occasion, although he, being in a large way of business, was in the habit of supplying many other Druggists and Apothecaries with a great proportion of their stock: in some articles he had introduced considerable improvements, which gave him the advantage of a very extensive trade. Goodwin being summoned before the president and censors of the college, challenged all present to prove any of his drugs faulty, and offered to compound on the spot any preparation, to compare with those which had been condemned. But he was ordered to leave the room, and on being recalled was told that all the articles were pronounced bad. Having collected the evidence of his servants, who had assisted in compounding the medicines, he appealed again to the censors, and called on Dr. Arbuthnot, who assured him that his drugs should not again be burnt before his house; but two days afterwards, when he was out on business, the censors came before his

door with a coach load of faggots, made a great fire, and burnt the goods, to the great terror of Mrs. Goodwin, who happened to be at home. This event was also published in the papers.

In the year 1727, a bill was introduced, entitled "An Act* for continuing the Laws therein mentioned, relating to Copper Bars exported, and for better preventing Frauds committed by Bankrupts, and for searching Drugs and Compositions for Medicines." The Apothecaries petitioned the House of Commons against this Act, and were heard by their counsel, Mr. Fitzakerly and Mr. Lingard; who urged, with much earnestness, the objections against the bill. But when the Apothecaries were called upon to state, whether any of them had suffered any of those hardships which had been mentioned, they remained silent, on which Goodwin came forward and stated his case. This annoyed the Apothecaries, because Goodwin was not a member of their company, on which account they had not called him as a witness, and were unwilling to be under any obligation to him. Dr. Friend and Dr. Shadwell spoke in prejudice of Goodwin, and would not allow him to reply; but Mr. Hungerford pleaded in his behalf. It was determined by the Committee, that the Act should continue in force three years.

Goodwin being thus foiled, petitioned the House of Lords against the bill for continuing an Act entitled "*An Act* for the better viewing, searching, and examining all Drugs," &c., and was heard before the Committee on the 13th of May; but, notwithstanding the case which he made out, he could not succeed in gaining his point, and the bill was passed. It is said, however, that he gained £600 damages for the injury he had sustained.

The author of a pamphlet, entitled "Reasons against the Bill for viewing, searching, and examining all Drugs, Medicines," &c. (1731), gives the following anecdote:

"I hear there is three or four grocers that have erected in Old Fish Street a gew-gaw elaboratory, and fitted up a whimsical shop, without any titles to their pots, on purpose, as 'tis supposed, to elude the Physicians' inquisition; by which means they propose to serve them, as some of the Faculty was served in a search, who when they came into an Apothecary's shop in the skirts of the city, to examine his medicines, &c., saw a shop-pot standing on the counter, entitled *Ungt. Album*; but, by accident or on purpose, I can't say which, the Apothecary had put some *Album Græcum* in it. The gentlemen got about the pot, and were viewing it; each gave his opinion: one said it was hard, another said it did not smell enough of the camphir, a third said it ought to be softened or malax'd with some oil; but the fourth, in a passion, was for throwing it out of doors as a medicine corrupt and decayed, and not fitted for the use of man's body. The boy all this while hearing their learned arguments, smiled, but said nothing until they were for throwing it away: then he cried 'Pray, gentlemen, don't throw it away,

* 13 George I., c. 27.

'tis a very good medicine ; I was forced to go as far as Hampstead to procure the chief ingredient of it.' 'What is it, then ?' said one of the learned. 'Why, gentlemen,' says the boy, 'tis white dogs' — ; I think you call it Album Græcum.'—'And what doth he do with this Album Græcum ?' 'Sir,' says the boy, 'he mixeth it with honey, and he gives it his patients, and cures them of their sore throats.'"

In the Pharmacopœia of 1721, many of the ridiculous remedies formerly in use were omitted ; yet, this edition contains among the Materia Medica, a considerable number of substances which derived their reputation from superstition or prejudice, as, for instance, bees, earthworms, millepedes, vipers, album græcum, bezoar, calculi from the human bladder and from ox-galls, spiders' webs, usnea cranii humani, cranium hominis, stercus columbarum, &c. &c.

Many of the formulæ in this work appear to be constructed on the principle of a galvanic battery, as if the intensity of the effect had depended on the number of the ingredients. One formula, although not so complicated as some others, will serve to illustrate the state of Pharmacy at that period. PULVIS AD GUTTETAM.

R Rad. Fraxinellæ, Visci Quercus, Contrayervæ, Serpentariæ Virginianæ, Pæoniæ maris, Seminis Pæoniæ maris, Cornu Cervis calcinati, Ungulæ Alcis, ana drachmas duas ; Rad. Valerianæ Silvestris. unciam ; Carallii rubri, Cranii humani, ana drachma tres ; Lapidis Hyacinthi, drachmam unam ; Bezoardice occidentalis, drachmam unam, et semiss, orientalis scrupulum. M. fiat pulvis : cui addi possunt Moschi grana quinque Foliorum auri N° triginta.

It was generally supposed by our ancestors that it was necessary to correct and modify the action of all medicines, by adding others of an opposite nature, and remedies were often classified as hot and cold remedies, a certain proportion of each class being combined, according to the preponderance on one side or the other, which was desired. In preparing chemical medicines, the process was frequently repeated ; in some cases above twenty times, under the idea that the efficacy was thus increased or concentrated. MERCURIUS DULCIS SUBLIMATUS, was directed to be sublimed at least three times ; if sublimed four or five times or oftener, it was called CALOMEL, but not otherwise.

Vessels were also sometimes used for distillation which were so constructed that the contents of the receiver might easily be thrown back into the retort, without breaking the connexion, by which means the process might be continued and repeated *ad infinitum*.

A very slight inspection of the Pharmacopœia of 1746, is sufficient to show, that it is, in every respect, a great improvement upon that which preceded it in 1721. This amelioration is, perhaps, in hardly any respect more evident than in the number and nature of the syrups—they are reduced from forty to

twenty-one, and the formulæ are much more simple; compare, for example, the Syrupus de Althæâ of the older Pharmacopœia, and the Syrupus ex Althæâ of the more recent one; the former contains about twenty ingredients, while the latter is prepared simply from the root of the plant, with the requisite proportions of sugar and water. The plasters are again reduced from about twenty-six to fourteen. Among those which are omitted, are the Emplastrum de Betonicâ, containing nearly twenty ingredients; and the Emplastrum Cæsaris, of which numerous herbs form also a part, and which contain about the same number of ingredients. It must, however, detract from the praise which might otherwise be fairly bestowed on this work, that Mithridatum, with its forty ingredients, and Theriaca Andromachi, with about sixty, were suffered to remain. The ointments, are, however, reduced from about forty to half that number, and their formulæ are greatly simplified and improved. Among the chemical preparations of the metals, the progress of science is, in many cases, conspicuous; for example, under the head of SAL SEU VITRIOLUM MARTIS, in the Pharmacopœia of 1721, we find the following directions for preparing sulphate of iron:

Fit ex Spiritus Vini optimi, unciis quator.

Olei Vitrioli, unciis duabus.

Serratis simul in vase ferreo ut Chrystalli formentur.

In the Pharmacopœia of 1746, this salt, under the name of Sal Martis, is prepared by dissolving iron filings in dilute sulphuric acid, filtering the solution after having for some time kept it warm, and then allowing crystals to form.

In the preparations of Mercury, advantageous changes are also made, both in the formulæ and nomenclature.

In no part of the more recent work is the improvement greater than in the expulsion of numerous useless articles from the Materia Medica. The entire work was carefully edited, and assumes a much more scientific form than any of its predecessors.

The Corporation of Apothecaries obtained a charter, in the year 1748, empowering it to license Apothecaries to sell medicines in London, or within seven miles; and also to search the shops within that district. This occasioned a fresh altercation, and many pamphlets and books were published on both sides. One of these, entitled *Frauds Detected*, supposed to have been written at the instigation of the Apothecaries Company, advocates the necessity of a strict adherence to the Pharmacopœia of the College, and the importance of good quality in the articles employed. It contains a summary of the various adulterations which were said to prevail at that time, and concludes with a series of arguments in favour of a frequent and effectual visitation

of shops, which, it is said, would be an advantage to the honest and a check on the fraudulent. Among many other abuses which are enumerated, it is said, that few foreign drugs are brought into this country free from impurities, being generally mixed with sticks, stones, straws, dirt, &c., and that it is a not unfrequent practice to

“Beat them into the most capital compositions (such as Mithridate, Venice treacle, Diascordium, &c.), with the other ingredients unpicked, and with all their dross about them. Nay, what is worse, sometimes to beat in nothing but the dross left after straining, just to flavour the medicine with the little remains of the true drug sticking to it.”

It was also said, that “in the tincture of rhubarb, and in all other compositions in which this drug has a place, it was too frequent a practice to pick out from the heap all the bad rhubarb and hide it in them;” that “sal prunel” was sometimes adulterated with “alom;” that in diacodium, three-fourths of the poppy-heads were often omitted; that, in lapis contrayervæ, the pearls were omitted, and oyster-shell powder substituted; that in Gascon’s powder, the greenish colour of the bezoar stone was imitated by a little Spanish-juice and ox-gall; that in elixir proprietatis, and other preparations containing saffron, two-thirds of the quantity was omitted, when the price of saffron was high: that in mithridate, nearly all the expensive ingredients were left out, &c. &c.

Several answers to this publication appeared, among which is one entitled “*An Enquiry into the designs of the late PETITION presented to Parliament by the Company of Apothecaries, whereby the Apothecaries’ monstrous profits are exposed, and compared with those of the Chemist, with respect to practice and retail, to which is annexed a Scheme to prevent the empirical Apothecary from practising; and the Chemist from preparing and vending sophisticated Medicines.*” The author of this pamphlet acknowledges the importance of a strict adherence to the formulæ of the Pharmacopœia, but asserts, that even the Apothecaries’ Company do not set the example, and denies the propriety of their being empowered to search shops. A case is mentioned in which the inspectors appointed by the company had been in the habit of annually visiting an Apothecary, and extorting from him six shillings each time as their perquisite, which he at length began to resist. On one occasion he was not at home when they called, and on examining his mithridate, they all condemned it as a medicine not fit to be used. At this moment the Apothecary returned, and on being told that his mithridate was bad, and asked for the customary fine, he said,

“Nay, now I am convinced what a nest of villains I have to deal with, who being nettled at my refusing their usual imposition, begin to show their knavish principles, by condemning medicines of their own compounding.”

He then produced the invoice from his file, and called the man as a witness who brought the mithridate from the Hall.

Having endeavoured to show, by this and other instances, that the inspectors of the company were not competent judges, the author observes,

"And if this be true, how can you expect Apothecaries in general to compound medicines justly, when they have so bad an example? * * *

"It is generally allowed that one half, if not three out of four of those who style themselves Apothecaries, in and about London, some too in very reputable practice, are so very illiterate, that they understand no more of compounding and preparing capital medicines than they do of the philosopher's stone. * * * Nay, there is not one in ten who perfectly understands the derivation and meaning of his technical terms, or can read the physician's bill truly, in proper Latin, nor perhaps understands it any better abbreviated: so that these persons are under the greatest obligations to Dr. Pemberton for translating the late Dispensatory into English."

The author also observes,

"It has been often remarked, that there are not upwards of twenty regular Chemists in London, and yet there are hundreds who style themselves so. * * * To a man who is qualified, the method of compounding *Galenical* medicines will very naturally occur, though in this there is more honesty than knowledge required; but it must be allowed, that no man knows how to mix and proportion ingredients of various qualities so well as he who is acquainted with Chemical principles."

One of the objects of the Apothecaries' Petition alluded to in this pamphlet, was to obtain an Act of Parliament which would give that body the power of searching the shops of *Chemists*, as well as Apothecaries. This privilege was not granted, and the author of the pamphlet endeavours to prove that the Chemist who prepares medicines is a more competent judge of their quality than the Apothecary who procures them ready made. He admits that there are many among the Chemists, Druggists, and Apothecaries, who are unqualified and dishonest, and he proposes as a remedy, the appointment of a committee, consisting of an equal number of Physicians, Druggists and Chemists, to be annually chosen by the College of Physicians, as inspectors of shops.

In another answer to *Frauds Detected*, entitled *The Apothecary Displayed*, the several charges of adulteration are answered *seriatim*. In reference to the statement that the Druggists mix into their compositions the impure drugs as they receive them from abroad, &c., it is said,

"It is almost impossible for men to be more diligent and careful, or to take more pains than they do; how often may you see them with a *Seron of Bark*, first sifting away the dust, then separating the small sort, dividing the large and woody from the more delicate and curious quill; while they are thus cleansing, sorting, and dividing their drugs, one or other of the most eminent Apothecaries alights from his chariot at the door, and buys up all the raspings of the rhubarb, the siftings of the bark, and the sweepings of the shop. Does he buy it to burn, think you, or conscientiously to destroy it for the good of mankind? (as they would make you believe in

their petition). No, he says he only wants it for powder, or it will do well enough for the tincture or the syrup, or if perchance he purchases four ounces of the better sort only to keep in a glass and show his customers, has he not four pounds of the worst sort with it? * * * If the Druggist beats in the dross with the drug, where has he the dross to beat in by itself? You know the Apothecary bought that, and could he be supposed to beat in the dross by itself, what the DEVIL becomes of the drug?"

This is the kind of argument which abounds in the works written at the period now under consideration, and so many ludicrous instances of ignorance and fraud are enumerated by all parties, each against the other, that a very elaborate and amusing compilation might be made from these curious documents. It is however sufficient for our present purpose to introduce a few quotations as examples.

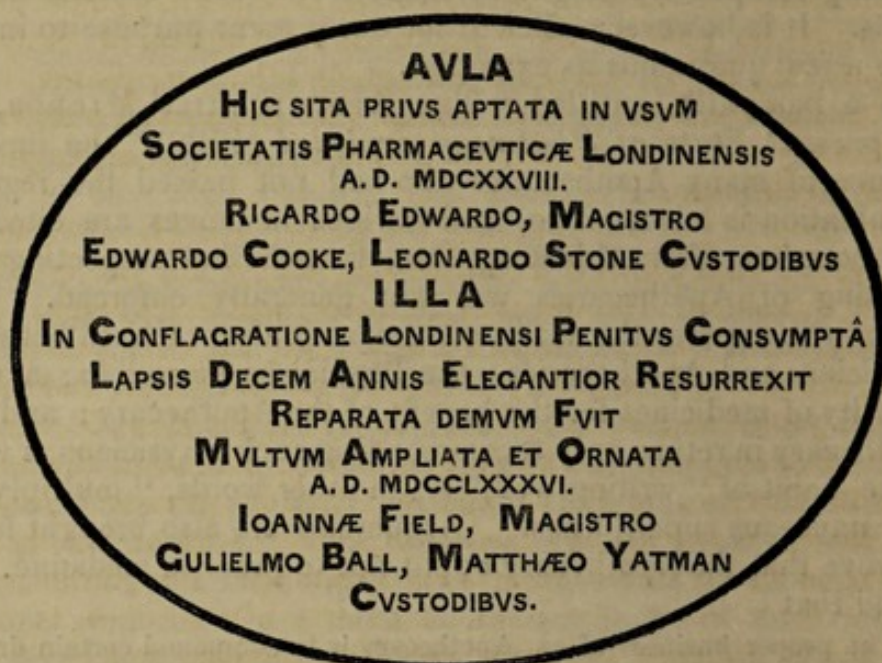
In a pamphlet, entitled "*THE APOTHECARIES' MIRROR, or the present State of Pharmacy exploded* (1790)," the incompetence of many Apothecaries who had not passed the regular examination is adverted to, and various instances are cited in corroboration; from this it appears, that the law respecting the licensing of Apothecaries was not generally enforced. The author also exposes the manœuvres commonly practised between Physicians and Apothecaries—the Physicians prescribing a vast quantity of medicines for the benefit of the Apothecary; and the Apothecary in return only recommending such Physicians as were in the habit of "writing well," or, in other words, "multiplying their nauseous superfluities." Arguments are also brought forth to prove that the Apothecary ought not to practise medicine. It is said that

"The proper business of an Apothecary is to compound certain drugs, according to Physicians or Surgeons' prescriptions. It may happen that some of these articles require pulverizing; but it is presumed, that beating at a mortar does not necessarily make a man learned. * * * All the advantages they presume upon beyond these are only seeing eminent practitioners' prescriptions and their patients. * * * The compounding of medicines prescribed, and knowing *why* they are prescribed, are two different things: one is an ordinary habitual thing, the other depends upon the circumstances of the case, and cannot possibly be judged of unless by one who understands the natural history of the human body, and is acquainted with the mechanism and operations of nature. These are heights of knowledge at which few Apothecaries arrive."

The first Edinburgh Pharmacopœia was published in 1699, and new editions appeared in 1722, 1736, and 1744. Four years afterwards, Dr. Lewis published an English translation, under the title of "*The New Dispensatory*." This work contained much additional information, and was attended with great success. Dr. Lewis published several editions, and was succeeded by Dr. Webster and Dr. Duncan, and, lastly, by Dr. Duncan, jun., who published eight editions in the course of twelve years. Dr. James's "*Pharmacopœia Universalis, or New Universal English Dispensatory*," was published in 1747.

Subsequent editions or republications of the Edinburgh Pharmacopœia appeared in 1756, 1774, 1783, 1792, 1803, 1804, 1806, 1813, 1817, 1839, 1841. It was invariably published in Latin until 1839, when the English language was adopted by the Edinburgh college.

The Apothecaries' Hall was partially destroyed at the fire of London, and in the year 1786 it was rebuilt on a more extensive scale, and improved in every respect. This event is commemorated in an inscription on the walls of the present establishment, which is as follows :



The Apothecaries' Hall continued to compete successfully with the druggists and merchants in the supply of medicines to the navy, and the East India Company, as well as in other business, both wholesale and retail. This gave rise occasionally to disputes and controversies, and several pamphlets, published about this time, contain reciprocal charges made by the Druggists and Apothecaries against each other of furnishing adulterated articles.

It may be supposed that these charges were not altogether without foundation, although it appears by the result, that the Apothecaries had the advantage, as they succeeded in monopolizing a large share of the export business.

The origin of the BOTANIC GARDEN AT CHELSEA, belonging to the Society of Apothecaries, is involved in some obscurity ; but it is supposed to have been founded prior to the year 1673. The first mention of it in the records of the society is contained in a minute (dated June 21st, 1674), in which it was resolved to build a wall round the garden, which was to be done by subscription, provided the Court of Assistants would agree to pay two pounds

for each of the herborizings or botanical walks. These walks were instituted in the year 1633, at which period one took place annually; but at the time the above agreement was entered into, the number had been increased to six. The proprietors of the laboratory stock also gave fifty pounds towards the expense of the wall; in consideration of which they were allowed a piece of ground in the garden for herbs.

In the year 1679, a Committee of Management was appointed; consisting of twenty-one Assistants, thirty Liverymen, and twenty of the Yeomanry. In the following year a greenhouse was built, at an expense of £138. Mr. Evelyn, in his diary, mentions a visit which he paid to the "Apothecaries' Garden of Simples" (August 7th, 1685), where he saw among other rare plants, "the tree bearing the Jesuit's bark, which had done such wonders in quartan agues." He also notices the subterraneous heat employed in the greenhouse.

The propriety of discontinuing the garden was discussed in the year 1693, from which it would appear, that it was not in a flourishing condition. The decision, however, was in its favour; and in 1697, Lord Cheyne granted a new lease for sixty years. In 1708, it was found necessary to raise additional funds, and ninety persons joined in a subscription. In 1714, Sir Hans Sloane became connected with the institution, having purchased the manor of Lord Cheyne, in 1712; and in 1722, he granted a lease to the Master, Wardens, and Society of Apothecaries on certain conditions, of which the following is the substance: The garden, comprising three acres, one rood, and thirty-five perches, together with the greenhouse and other erections thereon, was to be held by the parties aforesaid for ever, at a yearly rent of five pounds, payable to Sir Hans Sloane, his heirs and assigns, provided the society presented annually to the President, Council, and Fellows of the Royal Society of London, fifty specimens of distinct plants, until the collection amounted to 2000; and provided also, that the garden was appropriated to the purpose of cultivating plants, instructing students, and advancing science. In the event of any of these conditions being violated, or dwellings being erected on the ground, the lease was to be forfeited.

In 1743 an order was issued, that no person should be allowed to gather specimens without the permission of the director or gardener; and that none but members might walk in the garden without being attended by the gardener. In 1747, Sir Hans Sloane presented £100 towards the repairs of the greenhouse, and in 1748 he gave £150 to aid in maintaining the garden. Other individuals gave liberal donations at various times, without which the garden could not have been maintained. Mr. Miller, one of the chief gardeners, was elected to that office in 1722, and retained it forty-eight years. He was buried at Chelsea,

and some years afterwards a cenotaph was erected to his memory by the Members of the Linnæan and Horticultural Societies. Further particulars respecting Mr. Miller and other gardeners connected with the Institution, may be found in a work entitled *MEMOIRS, Historical and Illustrative, of the BOTANIC GARDEN AT CHELSEA, belonging to the SOCIETY OF APOTHECARIES, London**, by those who can find the work, which is very scarce. A statue of Sir Hans Sloane was placed in the garden in 1751. In 1771, an embankment was built to recover portions of the ground which had been washed away by the river.

The botanical walks continue to be kept up. Five of them are open to the apprentices of every member of the Society; and one, which is called the general herborizing, is confined to members. As the excursions generally occupy the whole of the day, refreshments are provided for the students, who derive considerable benefit from this social and practical method of studying botany.

It was intended by the Charter of 1748, not only to restrain Druggists from practising Pharmacy, being considered unqualified, but also to prohibit Physicians and Surgeons from selling or preparing the medicines which they prescribed. But, notwithstanding this monopoly in favour of the Apothecaries, they found it impossible to secure to themselves those exclusive privileges provided in the act: the law was constantly evaded, and in the year 1793 they instituted an inquiry into the defects and privations which existed among them, and which arose, as they stated, from two grand causes:† —

“ First, The encroachment which Chemists and Druggists have, of late years, made on the profession of the Apothecary, by vending pharmaceutic preparations, and compounding the prescriptions of Physicians.

“ Secondly, The want of a competent jurisdiction in the profession itself, to regulate its practice, and to restrain ignorant and unqualified persons from practising at all.”

In the spring of this year (1793) several respectable Apothecaries formed themselves into a society for the purpose of investigating the sources of the existing evils; and, by means of an extensive correspondence, they collected “ a volume of facts demonstrative of the injury resulting to society at large, as well as to the profession in particular, from the toleration of these abuses.”

On the 17th of June, 1794, a general meeting of the Apothecaries of this kingdom was held at the Crown and Anchor, in the Strand, at which about 200 attended.

The object of the meeting was stated by Mr. Chamberlaine, and it was urged in the report,

* Printed by R. Gilbert, St. John's Square, Clerkenwell. 1820.

† See Good's “History of Medicine.”

"That this unjust and innovating usurpation of the Druggists, together with the intrusion of uneducated and unskilful persons into professional practice, called loudly for some speedy and effective act, which should at once destroy the obtrusions complained of, and restore credit and respectability to the profession."

"If we regard personal views, it was stated to be a fact, the proof of which was in the tables of calculation then present, that were the aggregate sums obtained by this infringement of the Druggists, and divided among the Druggists of this metropolis (a body of men unknown to the world till about the end of the last century, unauthorized by any public charter, and almost undefined by any public act), were these sums to be equally divided, as they ought to be divided, amongst the Apothecaries of the metropolis, every one would have an addition of nearly £200 a year to his present income. But this evil, it appeared, was not confined to the capital; it was declared to be a morbid infection—that it began at the capital as a central point, but diffused its deadly breath from thence to all the larger cities and towns throughout the kingdom. Nor stopped the contagion here. From the larger cities and towns it was beheld propagating itself to smaller cities and towns, till at length, so general was the disease, there was scarcely to be found a village or a hamlet without a village or a hamlet Druggist. If the sale of medicines and the giving of advice was not here sufficient to support the vender, he added to his own occupation the sale of mops, brooms, bacon, butter, and a thousand such articles besides."

The hardships endured by the Apothecaries having been described at some length, the report proceeds to discuss the ignorance and inefficiency of the Druggists, some of whom are said to have made fatal mistakes, and

"From want of classical education, and an incapacity of translating the directions appended to their prescriptions, have been under the necessity of disturbing Apothecaries in the night to translate for them; others who, from boldly adventuring to interpret, have given wrong directions, or who, not daring to interpret, have dispensed their medicines without any directions at all." * * * *

"The composition of prescriptions, and the vending of pharmaceutic preparations by Druggists, comprise, then, a national evil of no small magnitude. The materials they make use of must, in general, be mere offals, and the refuse of better drugs; and from want of classical knowledge, perpetual errors and negligences are discovered in their combination. The credit of the Physician is endangered, and the patient perhaps is destroyed. But if this be a source of national abuse and deceit, what infinite injury must result from the still bolder practice such men often allow themselves, of adding pretended medical advice to erroneous medical compositions? Men who have never enjoyed any other medical education than what their own counters have afforded; and who can know nothing of the powers of diseases, or of the powers of medicines to remove those diseases when present? To attempt to demonstrate this to be a public evil, and one that calls loudly for redress, is altogether to lose time: it is to light up the sun at noonday with a candle."

In order to put an end to these abuses, it was proposed to form a general Association of the Apothecaries of Great Britain, who should

"Engage to deal with such Druggists only as would immediately consent to relinquish the composition of all medical prescriptions—to retain to themselves their wholesale occupation alone—and to receive no Apprentices, and employ no Assistant, who had not had a classical education."

It was resolved also to form a general Committee, to act in the

name of the whole, and to endeavour to obtain the necessary reformation by an application to Parliament.

Alluding to the chances of success, Mr. John Mason Good, whose speech is contained in the report, proceeds to state :

“ As to opposition, we had no reason to expect it, but from the Druggists themselves. Nor were all the Druggists inimical to medical reform—many had already expressed their good wishes towards it, and some had even contributed pecuniary assistance to carry it into execution. But if the Druggists are to oppose us, who are to oppose the Druggists? Druggists, like all others engaged in commercial transactions, are dependent men. On whom are Druggists dependent? On Apothecaries, on ourselves. Let us then make that use of this dependence which it behoves us to make. Let us universally and individually write to every Druggist with whom we traffic, and inform him that if he values the connexion between us, we insist upon it, on the continuance of that connexion, that he withhold from us all personal opposition whatsoever. Let us publish to all Druggists, that if, deaf to their own interests as well as ours, they should nevertheless persist in opposing us: should they frustrate our intentions, and wrench, if it were possible, the very statute from our hands after we had obtained it, and tear it into a thousand tatters, we have still left the former resource of associating ourselves against such opponents, we have still left the power of creating one common fund, of establishing one general magazine, of supplying ourselves from such magazine, and thus by a single act, of ruining their whole trade, and destroying their existence as a commercial community.

* * * * *

It was then proposed,

“ That the persons present should form themselves into a Society, under the title of *THE GENERAL PHARMACEUTICAL ASSOCIATION OF GREAT BRITAIN*, and that all other regularly educated practitioners throughout the kingdom be invited to associate in the common cause.”

A Committee of twenty members was elected; and it was resolved,

“ That it have regular meetings once a month, or as much oftener as may be deemed convenient, at the *BUFFALO TAVERN, BLOOMSBURY SQUARE* (the first meeting to be held on the 28th day of the present month, July); that it be open to the admission of every member of the Association, and be at liberty to summon general meetings, and to report progress whenever it may seem expedient to do so.”

A subscription of one guinea from each member was collected.

The Committee then undertook, by means of a systematic and universal correspondence, to communicate with every regularly educated practitioner in Pharmacy throughout the kingdom, for the purpose of urging them to join the Association, and also with a view to collect a further supply of evidence. It was found necessary to appoint special committees, and to meet regularly twice every month at the Buffalo Tavern. Mr. Good states in his report—

“ The extent of their correspondence is only bounded by the extent of the kingdom; and the materials collected most voluminous and immense. The ardour evinced by practitioners, in every part of the country, to forward the common cause, is uniform and universal; and scarcely a post arrived in London for the first two months after the establishment of the Association, without new statements, from personal knowledge, of increasing

evils accruing from the toleration of the abuses. There is not perhaps a single Druggist in the whole kingdom who compounds his different preparations in all respects consistently with the College Dispensatory; but the Druggists at Manchester appear to excel all others in such nefarious ingenuity, and to extend their endeavours to save trouble and expense to articles in which it could be scarcely imagined such endeavours were necessary.

"A correspondent at Croydon mentions his having been applied to by the foreman of a Druggist for an explanation of the words '*cucurbita cruenta*,' which he had in vain sought for amongst the different preparations in his dispensatory; and at last had been happy enough to translate them '*an electrical shock*.'"

"A Druggist of similar penetration is reported, in a letter from Worcester, to exist in that city, who took infinite pains to obtain, by sending to other shops, a tincture of the name of '*ejusdem*.'"

In order to obtain evidence of the general prevalence of similar misdemeanors, a number of specimens of drugs and preparations were obtained at different shops in London, and submitted to a special Committee for examination. The Committee state as the result—

"That in the far greater number of instances, there were most evidently spurious or defective drugs, and erroneous composition. That the most expensive medicines were all of them, without any exception, adulterated;" "such was the case, particularly, with Aleppo scammony, with saffron, and Russian castor."—"Powder of gum-arabic was generally very indifferent; and, in one instance, when formed into a mucilage, contained no gluten* whatever, was extremely dirty and extremely opaque."—"The preparations from extemporaneous prescriptions scarcely bore any resemblance to what was expected, had they been compounded aright; and no two from the same prescription were similar."—"The directions were, in many cases, misconceived and improperly translated; in others, not more than half translated; and in one instance, particularly, the very reverse of what was written."

Among other circumstances investigated by this energetic association, the increase in the number of Druggists claimed particular attention; and from the statistical information thus obtained, it appears, that in some places the number had increased fourfold in the space of ten or twelve years. A correspondent, who related the opening of three new shops in one town within twelve months, observes,

"But Pharmacy alone comprises too small a field for these men of letters and ambition—they prescribe, whenever applied to, though totally ignorant of medical science, and even pretend to reduce fractures."

The Committee, alluding to this circumstance, remark,

"But Druggists are not the only persons who are thus adventurous. In many places the grocers of the town take upon themselves this very benevolent office, or at least a part of it. In the small town of Uckfield there are not less than three of this description, who prescribe as well as vend medicines, applying for information to the Druggists with whom they deal; who in consequence hereof send them down advice just equal to their medicines, and present them with tables of different doses."

* "No gluten"!!

The Committee spared no exertions in collecting from every quarter, cases of malpractice and misadventure, a few specimens of which serve to enliven their report, adding that

“The secretary would satisfy the curiosity of any person who wished for farther specimens of the same destructive conduct, at any time, when properly applied to, and from proper motives.”

Having collected a sufficient mass of evidence, the Committee presented addresses to the College of Physicians, the Corporation of Surgeons, and the Society of Apothecaries; and on the sixth of February, 1795, a petition was presented to Parliament on behalf of the Association, by Sir William Dolben. It was found necessary, however, to postpone the completion of these measures until the following session, and in the meantime a full report of proceedings was circulated to all the members, calling upon them to second these efforts by means of addresses, in which the following principles were to be continually adverted to :

“ *First*, That the liberty to vend pharmaceutical preparations, compound Physicians’ prescriptions, &c. &c., should appertain to the Apothecary alone. *Secondly*, That no young men be taken as Apprentices, who have not had an approved education. *Thirdly*, That none be Assistants without having been examined as to their competency for pharmaceutical compositions, &c. &c. *Fourthly*, That none be at liberty to settle until examined; nor any person entitled to an examination until he shall have faithfully served an apprenticeship of five years at least. *Fifthly*, That to promote these purposes, a competent court be established—to consist of a certain number of members, who shall have full power to make such by-laws and regulations, as may be thought most conducive to the welfare both of the public and the profession.”

From the above brief account of the establishment of the Pharmaceutical Association of 1794, it will be seen that, at this period, the Chemists and Druggists were entering upon that position which they now occupy, as dispensers of medicine.

The result of these exertions, however, was not so successful as was anticipated, and the Pharmaceutical Association of 1794 was broken up within a short time of its formation, without having effected the extinction, or subjugation, of that class against which its efforts were directed. The proceedings of the Association are recorded by Mason Good, who was a leading member, and from whose work the above outline is taken; the absence of a similar record of particulars on the other side forms a gap in our history. It is probable that this violent attack, which was designed as a death-blow to the rising class of pharmaceutists, had the opposite effect, by obliging them in some degree to reform the system of conducting their business, and to unite among themselves for the protection of their interests.