NEPHROTOMY.

"The operation of cutting a stone out of the kidney" is, he states, "a proceeding which, perhaps, has never been actually put into practice." "There is no doubt," he adds, "that stones have often been extracted from abscesses about the region of the kidneys, after their presence has been detected with a probe. But with regard to cutting into the kidney, the deep situation of this viscus, and the want of symptoms by which the lodgment of a stone in it can be certainly discovered, will always be strong objections to the practice."

CESOPHAGOTOMY.

It is somewhat surprising to find that this operation was performed, and with success, so long ago as 1738, and again some years later (Goursand, Rolland). Cooper approves of it if a patient were dying of obstruction by a foreign body: "Doubtless the uncertain chance of the operation should be preferred to the certainty of a fatal result." There is no mention of any sort of gastrostomy.

OVARIAN DROPSY.

The whole subject of the surgical diseases of the female organs and their treatment takes but a few pages; and these are of no particular value. No word is said of ovariectomy. (The date of McDowell's first operation is 1809.) Uterine polypi, and the chief displacements of the uterus, and their treatment, are noted; but there is nothing, or next to nothing, about the inflammations of the pelvic organs.

RECTUM, CANCER OF.

For the treatment of "the scirrhus-contracted rectum," there is the use of bougies, and the administration of palliative treatment. (The date of Amussat's first colotomy is 1839.)

SPINA BIFIDA.

Cooper describes very carefully Benjamin Bell's proposal to ligature the tumour—"I do not know whether this gentleman ever put the above scheme in practice; but suppose not"—and two cases, one of them successful, treated by Abernethy and Astley Cooper by repeated puncture and pressure. He makes no mention of any method of injection.

TESTICLE, DISEASES OF.

This article is mainly taken from Perceval Pott. But in truth it is impossible, at this present time, to understand his account of these diseases; the term "sarcocoele" was applied by him to diseases that have long since been defined and set apart.

TONGUE, DISEASES OF.

No mention is made of tuberculous or syphilitic ulceration of the tongue; but something is said of the latter in the article on Venereal Disease. It is probable that in the tongue and in the testicle tertiary syphilis was seldom recognised. "Very malignant" ulcers of the tongue, Cooper says, are sometimes cured by medical treatment. For "true cancerous disease," he advises free removal by the knife, and not caustics. "Cruel as the operation of removing the tongue may appear, we should not hesitate to perform it whenever the disease has made a certain progress and is decidedly of a cancerous nature."

There is no need, and no space left, to contrast the surgical teaching of 1800 with that of 1900. But it may well be doubted whether any of our present surgical textbooks far excel this old *Dictionary of Practical Surgery* in common sense, carefulness, and safe doctrine put in plain words. We have come into vast legacies of facts, and take as a matter of course

things that Cooper never had; but that does not prove that we make better use of our opportunities, or have more love of our work, than the men of a hundred years ago.

Sanitary Knowledge in 1800.

By W. H. CORFIELD, M.A., M.D. OXON., F.R.C.P.,

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In order to understand the condition of things from a public-health point of view at the end of last century and the beginning of this, it is necessary to consider briefly the important discoveries with regard to the prevention of disease made during the eighteenth century.

SMALL-POX.

It was near the beginning of that century that inoculation for small-pox was introduced into this country by Lady Mary Wortley Montague, the wife of the English Ambassador to Turkey, this practice having arrived in Constantinople, it is supposed from Circassia, before the end of the seventeenth century. The advantages and disadvantages of inoculation have been so frequently discussed that it is unnecessary to enlarge on the subject here. That the practice itself became almost universal is a sufficient proof of the general prevalence of small-pox, and also (to quote from a lecture I delivered in Birmingham in 1874)

"Shows us at once, in the most striking manner, the fearful nature of the disease. Here was one of the most loathsome diseases, and certainly the most terrible and fatal disorder to which mankind has ever been subject, and yet people deliberately took the poison of this fearful disease and inoculated their children and themselves with it, and this was done in the last century amongst all ranks up to the Royal Family. Why was this? Every inoculated person became a focus for the spread of the disease, and yet inoculation was to a great extent successful, not in preventing the spread of the disease, but in diminishing the number of deaths from it. What does that mean? There is only one thing that it can mean. If they increased the number of centres from which the disease could spread, and actually did spread, in the most virulent form, and in spite of that the death-rate was lessened, which it was considerably, there is only one conclusion to which we can come, which is that the whole population was so infected by the disease that the multiplication of the centres of infection was a matter of little importance compared with the advantage obtained by getting the disease in the milder form in which it usually appeared after inoculation. Inoculation did spread the disease, because during the periods when inoculation was practised epidemics were more frequent than they were before or have been since; but for all that the death-rate was less. For instance, before inoculation was practised, there were 71 or 72 epidemics every 100 years. During the 63 years when inoculation was practised, there were no fewer than 53 epidemics, which is equivalent to 84 every 100 years. This practice is now illegal, and very wisely so."

LEAD POISONING.

Next came the discovery by Sir George Baker that the "Devonshire colic" was produced by lead poisoning. This disease was very prevalent in that county at the beginning of the century, and was generally attributed to the drinking of cider. Various theories, which we need not trouble ourselves with, were started by different observers to account for such a disease being produced by cider. Sir George Baker, however, recognised the symptoms as those of lead poisoning. He had samples of Devonshire cider analysed and found lead in them, whereas samples of cider from Here-

fordshire, where the disease did not prevail any more than it did in Gloucestershire or Worcestershire, showed no lead. He traced the lead to the use of that metal in the apparatus for making cider in Devonshire, which he describes in considerable detail, showing how the juice of the apples necessarily came into contact with the lead, and he submitted his views to the Royal College of Physicians in a series of masterly papers, the first of which was entitled "An Essay concerning the Cause of the Endemic Colic of Devonshire, which was read in the theatre of the Royal College of Physicians in London on the 29th day of June, 1767."

SCURVY.

Some idea of the excessive prevalence of scurvy among sailors in the eighteenth century may be gathered from the statement of Sir Gilbert Blane in his account of "The Progressive Improvement of the Health of the Royal Navy at the end of the Eighteenth and beginning of the Nineteenth Century," to the effect that Dr. Lind, the Physician to the Haslar Hospital, had informed him that in one of the years of the American war "there had been sent on shore from the Channel Fleet in the course of four months 6,064 men, almost all affected with fever or scurvy, and that on another occasion after a ten weeks' cruise 2,500 men were brought into port ill of scurvy." This terrible disease was prevented by the use of lemon juice. This had already been recommended by John Woodall in his work entitled *The Surgeons' Mate; or Military and Domestic Surgery* (1639), in which he says, speaking of the cure for scurvy, "The use of the juyce of lemons is a precious medicine and well tried, being sound and good; let it have the chief place, for it will deserve it." After some directions as to how and when it is to be given, he adds: "In want whereof use the juyce of limes, oranges, or citrons, or the pulpe of tamarinds." Later on in the seventeenth century lemon juice was occasionally supplied to merchant ships, but its use was not generally adopted.

Dr. James Lind in his *Treatise on the Scurvy* (second edition, 1757) describes some experiments which he made with different remedies on patients suffering from scurvy, and says: "The most sudden and visible good effects were perceived from the use of the oranges and lemons, one of those who had taken them being at the end of six days fit for duty; the other was the best recovered of any in his condition, and being now deemed pretty well was appointed nurse to the rest of the sick." Dr. Lind also recommends the use of onions for the prevention of scurvy.

Lemon juice was ordered to be supplied to the Royal Navy in 1795. The result of this Sir Gilbert Blane, writing in 1830, describes as follows: "The scurvy has been prevented, subdued, and totally rooted out by the general use of lemon juice, supplied for the first time at the public expense in the year 1795; and which operated so speedily that in less than two years afterwards it became extinct, and has remained so," and he adds later on, "by this the scurvy has been so entirely eradicated—or, rather, prevented, that there are now surgeons in the navy of long standing who have never seen a case of it; and it has been already mentioned that in less than eighteen months after the general supply of it Lord Spencer did not find a single case of it in Haslar Hospital."

No wonder that in his *Observations on the Diseases of Seamen*, 3rd edition, 1803, he wrote: "The introduction of this article (lemon juice) may therefore be considered as an era in the internal economy of our navy."

In the meantime Captain Cook had performed his famous first voyage round the world. He started in 1772, and it took three years and eighteen days. During this voyage he

only lost four men, three by accident and one by phthisis, out of 118 sailors. The secret of Captain Cook's success in keeping his men healthy is to be found in the journal of his last voyage to the Pacific Ocean, 1776 to 1780, in which occurs the following statement:

"From the time of landing our brewers began brewing; and the woods affording plenty of spruce, the crews of both ships were supplied with this wholesome beverage during our continuance at New Zealand, and for several weeks after we were at sea. This liquor was found so salutary that it seemed to strike at the very root of the scurvy, and left not the least symptom of it remaining about any man in the ships."

"Indeed, great care was taken to supply the crews daily with plenty of scurvy-grass and wild celery to boil with their portable soup, and salt meat was withheld, and fish substituted in its room."

To Captain Cook is no doubt due the credit of showing how to carry out long voyages under healthy conditions.

JAILS AND JAIL FEVER.

Typhus, or jail fever, which had produced the "Black Assizes" at Oxford and other places during the sixteenth century, when (according to Sir Gilbert Blane) Francis Bacon (Lord Verulam) "pointed out clearly that this was a production of filth accumulated by the long neglect of the persons of the prisoners," was extremely prevalent during the eighteenth century, when it even attacked the army and navy.

It is due to the labours of John Howard, who was appointed High Sheriff of Bedfordshire in 1773, that the shockingly insanitary condition of the overcrowded prisons in this and other countries was thoroughly investigated and made public, with the result that an Act was passed in 1774 for the improvement of the health of prisoners and the prevention of jail fever, and that improvements in the sanitary conditions of the prisons in the United Kingdom have gone on ever since, so that now there is not only no jail fever, but the late Sir Robert Rawlinson used to say that from the sanitary point of view a prison was "the best place in England for a man to live in." It must be remembered that enteric fever, which was endemic in some jails, and notably in Milbank Prison, was then considered to be a form of typhus fever.

VACCINATION.

The last great sanitary discovery of the eighteenth century was that of vaccination for the prevention of small-pox, made by Edward Jenner in 1795, and published by him in 1798. The results of this discovery were so thoroughly brought out in this JOURNAL in a number published in 1896,¹ that it is not necessary to refer to them again, so I will merely content myself by pointing out that so far from small-pox decreasing as an epidemic disease during the last century, as has been stated, the five most severe epidemics of that century all occurred in the latter half of it, and the most severe one of all in 1796. Of course, as is always the case, the death-rate of the next few years was much smaller, as, after a great epidemic like that, which caused no fewer than 184 deaths out of each 1,000 deaths from all causes, the number of susceptible persons in the population is very much diminished.

DISEASES OF OCCUPATIONS.

In the year 1703 there was published at Utrecht a most remarkable book entitled, *De Morbis Artificum Diatriba*, by Bernardino Ramazzini, the Professor of Medicine in the University of Padua. The book was translated into English by Dr. Robert James (author of the *Medicinal Dictionary*, and compounder of the celebrated "Fever Powders" which are still called by his name), and was published in London in 1746,

¹ BRITISH MEDICAL JOURNAL, May 23rd.

under the title of "*A Treatise on the Diseases of Tradesmen, to which they are subject by their particular callings, with the method of avoiding and treating them.*" This treatise consisted of 43 chapters, and Chapter I., "Of the Diseases of Metal-Diggers," begins as follows:—

"The various and numerous diseases produced in artificers by the exercise of their respective trades are, in my opinion, derived principally from two causes, first, the noxious quality of the matter on which they work, and which, by breathing out noxious steams and subtle particles offensive to human nature, gives rise to particular diseases, and in the next place certain violent and disorderly motions and improper postures of the body, by which the natural structure of the vital machine is so undermined as gradually to make way for violent distemper."

Then follow chapters on the Diseases of Gilders, Surgeons, Chemists, Potters, "those who work in copper and tin," Glass-makers and Glass-Grinders, Painters "such as work upon Brimstone," Blacksmiths, "such as work in Lime and Plaister of Paris," Apothecaries, "Cleansers of Jakes" (privies), Fullers, etc., etc., including Tobacconists, Midwives, Nurses, Masons, and Bricklayers, Fishermen and Mariners, "such as stand when they are at work," "such tradesmen as sit much," "of the Diseases of the Jews," Couriers or Runners, "those who work upon Minute Things which strain the Eyes," "Music-masters, Singers, and Others of the like Professions," Husbandmen, which begins, of course, with the quotation from the "Prince of Poets":

O fortunatos nimium, sua si bona norint
Agricolas.

"Of the Diseases usual in Camps," and lastly, "Of the Diseases of Learned Men," to whom he apologises for including them among working men, and about whose diseases he writes an excellent chapter. Early in it he points out the frequency of dyspepsia in the following words:

"All the Men of Learning used to complain of a Weakness in the Stomach. Celsus says (Lib. i, Cap. 11): A great many of the Inhabitants of Cities and Towns, and almost all the Lovers of Learning, have Weak Stomachs. There is no hard Student almost but complains of his Stomach: for while the Brain is employed in digesting what the Desire of Knowledge and the love of Learning takes in, the Stomach cannot but make an imperfect Digestion of the Aliment, because the animal Spirits are diverted and taken up in the intellectual Service."

And at the end he sums up with the following advice:

"The Professors of Learning ought therefore to pursue the Study of Wisdom with Moderation and Conduct, and not to be so eager upon the Improvement of their Mind, as to neglect the Body: They ought to Keep an even Balance, so that the Soul and the Body may like Landlord and Guest observe the due Measures of Hospitality, and do mutual Offices, and not trample one another under Foot."

There is also a Supplement consisting of twelve short chapters on the Diseases of Printers, Writers and Amanuenses, Confectioners, and various others. The chapter on Diseases of Writers and Amanuenses is remarkable from the fact that the symptoms of Writers' Cramp are described in it.

In order to compile this epoch-making treatise, Ramazzini, as he tells us in his Preface, "thought it no indecency to step sometimes into the meaner Sort of Workhouses, and view the Secrets of Mechanic Arts," and alluding to the directions of Hippocrates as to the questions a physician should ask when he visits a patient, he says: "To which I would presume to add one Interrogation more, namely, *what Trade he is of.*"

HOSPITALS.

The subject of military hospitals and the "cure of camp diseases incident to soldiers" received considerable attention during the last century, the most important treatise on it being Dr. Richard Brocklesby's *Economical and Medical Observations* (1764). In this treatise he urges the advantages of temporary sheds as hospitals. The first instance he gives he describes as follows:

"In October, 1758, a greater number of sick, as before hinted, were landed out of the transports on the Isle of Wight than all the spare outhouses, barns, and empty cottages which could be procured for money or the sake of humanity at Newport were capable of containing. In this distress some gentlemen of the hospital proposed to erect a temporary shed with deal boards upon the open forest, and to have it thatched over with a coat of new straw thick enough to keep out wind and rain, and capacious enough to hold one hundred and twenty patients or upwards, for doing which and the use of the boards the country workman, who was undertaker, exacted forty pounds. Although the hovel was finished in a fashion the most slovenly, and apparently

inadequate to the end proposed, upon trial it was found that, notwithstanding much extraordinary cold as well as moisture which the sick there lodged had suffered, remarkably fewer died of the same diseases, though treated with the same medicines and the same general regimen, than died anywhere else, and all the convalescents recovered much sooner than they did in any of the warmer and closer huts and barns hired round Newport, where fires, and apparently better accommodations of every sort could be provided for them."

A little further on in his treatise he says:

"I had a further opportunity to prosecute my inquiry about this matter, in the second campaign afterwards, in the year 1760, when a dangerous putrid fever made its appearance amongst the sick of the thirtieth regiment at Guildford, in Surrey, in their infirmary, which was remote from camp about five miles. This place for the sick was crowded with more

An Early Form of Watercloset. (Reproduced from Sir John Harington's *Metamorphosis of Ajax*.)

than four times the number it ought to have contained; therefore, on my first visiting the house I strenuously remonstrated against that pernicious practice of huddling so many sick in so closely confined a place."

He then selected a spot upon Sand-Heath near Ripley, and erected a temporary hospital there at a trifling expense with the result "that though several soldiers were admitted into this repository ill of a true petechial jail fever, only one or two at most died in it, and I candidly ascribe their fortunate escape more to the benefit of a pure keen air they breathed therein every moment than to all the medicines they took every six hours or oftener."

In the next year he did a similar thing at Winchester Camp where "Three such mansions for the sick were erected, with all speed, at about two hundred yards in the rear of the camp, and air holes in the thatch, to be occasionally opened, served instead of windows at proper distances. All men in fevers whom I judged it safe to remove were immediately admitted into them from the close infirmary at Winchester, as well as from the camp. And the effect in less than a fortnight was to reduce the number in proportion as four to one, and soon to reduce these numbers (twenty-four in hospital) to less than half-a-dozen. In this manner matters went on to the very end of the campaign, with much fewer sick than ever they had before, and all the men admitted there were cured, except three at most."

Yet another instance:

"The following year, 1762, the like method was followed on the chalky soil of a different encampment, and the sick were parcelled out in small field hospitals, constructed upon the above-mentioned plan, with the addition of a large airing porch before each hospital door, for the sick, who could crawl out occasionally, to breathe untainted air, as well as to eat their meals in it; one of the three regiments likewise which was encamped there, and now persuaded to this plan, lost not a man during the whole encampment."

VENTILATION.

During the eighteenth century the ventilation of public buildings was much more attended to than it had been previously, and a ventilating fan, for either extracting or propelling air, was devised by Desaguliers, and applied to the ventilation of the House of Commons. A method for the ventilation of ships by means of pipes connecting various parts of the ship with the ashpit of a fireplace, and so causing

air to be extracted by means of the fire or fires, was also devised by Mr. Samuel Sutton, and was adopted in the ships of the Royal Navy and in some buildings.

WATER PIPES.

The water mains under the streets were made of trunks of trees, with holes bored through them longitudinally, so as to form pipes; one end of each was tapered and pushed into the other end of the next pipe, which had an iron band round it to prevent its being split. Such pipes are still not infrequently dug up in the London streets, and specimens of them may be seen at the Parkes Museum of Hygiene.

SEWERS AND DRAINS.

The drainage arrangements of towns and houses in the year 1800 were still in a very primitive condition. Pipe drains had not been yet invented, and the drains and sewers were consequently made of bricks or stone. As they were originally intended to carry off surplus water, they were made to discharge into the rivers, after their prototype the *Cloaca Maxima* of Rome. The excremental refuse of the houses was collected in cesspools or middens, in many cases under the houses themselves, and with overflow drains discharging into the drains or sewers of the town, although this proceeding was forbidden.

WATERCLOSETS.

But it was in the eighteenth century that the use of waterclosets in this country began. It is quite true that an appliance of the nature of a watercloset, by which the excremental matters were removed by the use of water, was adopted in the palace of the Cæsars

at Rome and in other buildings in that city.

It is also the fact that an apparatus of this kind was devised by Sir John Harington, the learned translator of Ariosto, and was described in detail by him in a work now of extreme rarity, entitled, *A New Discourse of a State subject called the Metamorphosis of AJAX*, and printed in 1596. In this rare book are to be found drawings representing the apparatus, which he styled "A Priue in Perfection," (1) in parts, (2) fitted together ready for use, and (3) in use, by a learned divine in college cap and gown. These three engravings are reproduced here from a copy of the work in the writer's collection, together with the following quaint verses referring to the third of them:

A plaine plot of

This is Don A IAX house, of the new fashion, all in funder, that a workman may see what he hath to do.

Here are the parts set downe with a rate of the pryfes, that a builder may gueffe what he hath to pay.
A. the cetterne stone or bricke pryfe. o.1.8.
B.D.E. the pytte that comes fro the cetterne with a stopple to the wather. o.3.6.
C. a waft pipe. o.1.3.
F.G. the ftem of the great stopple with a key to it. o.1.6.
H. the forme of the vpper brim of the vessell or stoole pot.
M. the stoole pot of stone pryfe. o.8.0.

N. the great brasse fluce, to which is three inches current, to send it down a gallop into the lax. o.10.0.
And leaft you should mislike with this phrafe, I had it in a verbe of a graue author that was wont to walke up and downe the Court, with a foreft bill, I houe forgot how it begun (like a beaft as he was) but it ended in ryme.

O that I were at Oxenford, to eate some Banberie cakes.

I. the seate with a peke deuaunr for elbow roome, the whole charge 30. shillings eight pence, yet a mafon of my matters was offered thirtie pounds for the like, Memorandum the scale is about halfe an inche to a foote.

A godly father sitting on a draught,
To doe as neede, and nature hath vs taught,
Mumbled (as was his maner) certain prayr's,
And vnto him the diuel straight repayr's :
And boldly to reuile him he begins,
Alledging that such praters are deadly sins
And that it shewd, he was deuoyd of grace,
To speake to God, from so vnmeet a place.
The reuerent man, though at the first dismaid,
Yet strong in faith, to Satan thus he said.
Thou damned spirit, wicked, false, and lying,
Dispairing thine owne good, and ours enuying :
Ech take his due, and me thou canst not hurt,
To God my prayr's I ment, to thee the durt.
Pure prayr assends to him that high doth sit,
Downe fals the filth, for fiendes of hell more fit.

It will be noticed that fish are shown in the water tank to indicate that it contains clean water, and that the overflow or "wast" pipe of this tank is shown as a warming pipe, and is not continued down into the cesspool, as was so often done in later times.

But, as has happened with many other inventions, the watercloset had no chance of coming into general use until it was patented and someone was interested in bringing it forward. This was done by one Alexander Cumming, who devised and patented an apparatus in 1775, and this apparatus was improved a few years afterwards by Bramah, the forerunner of our present valve closet.

THE TEACHING OF HYGIENE.

Of teaching of public health in our medical schools in 1800 there was none, which is hardly to be wondered at considering that it has only become a recognised subject of general medical education during the last few years; but in 1807 a successor appeared to the celebrated *Regimen Sanitatis Salerni* of the sixteenth century in the shape of a work written by the Right Honourable Sir John Sinclair, Bart., "founder of the Board of Agriculture," entitled *The Code of Health and Longevity, or Rules and Principles for, first, Preserving Health, second, Prolonging Life, and third, Curing and Alleviating Diseases, with Directions for appropriate Diet and Regimen*. This book is a most interesting and important treatise, and in the edition published in 1830 the subject is divided into chapters with the following headings, and with various subdivisions:

I. Air. II. Liquid Food. III. Solid Food. IV. Digestion. V. Exercise. VI. Sleep. VII. The Passions. VIII. Dress or Clothing. IX. Habitation or Place of Residence. X.

Travelling. XI. Residence in Foreign Climates. XII. Customs and Habits which Influence Health. XIII. Bathing. XIV. Means of Preventing Accidents or Common Disorders. XV. Education and Management of Children. XVI. Professional Occupation. XVII. Marriage or Connubial Connections. XVIII. Amusements; and XIX. Advantages to be derived from Knowledge and Science.

In the section of the chapter on Digestion, which treats of the excretions, he refers to the experiments of Sanctorius, the learned physician of Padua, who during the seventeenth century devised a balance by which he was able to determine, among other things, the amount of the perspiration.

This book, originally published in Latin under the title of "*Ars Sanctorii Sanctorii de Statica Medicina Aphorismorum Sectionibus Octo Comprehensa*," was translated into English first by Abdiah Cole in 1663 (under the title of "*A New Art of Physick, contained in Eight Sections of Aphorisms concerning Insensible Perspiration, being a Vapour or Breathing from the Body*," PLAINLY SHEWING THAT HEALTH AND SICKNESS IS BEST DISCERNED BY WEIGHING THE BODY"), who associated his name with that of the author as if they were joint authors, and altered "I" into "we" in the "Address to the Reader;" secondly, by "J. D." in 1676, under the title of *Medicina Statica, or Rules of Health, in Eight Sections of Aphorisms*; and lastly by John Quincy, M.D., in 1720. In his Address to the Reader, as translated by "J. D.," Sanctorius says: "It is a thing new, and not before heard of, in Medicine, that any one should be able to find out the exact weight of insensible perspiration, nor has any one of the Philosophers or Physicians attempted the doing of any thing in that part of the

Medical Faculty. I am the first that has essay'd it, and (if I am not mistaken) brought the art to perfection, by reason, and the experience of thirty years." The engraving of Sanctorius in his chair is here reproduced from an edition of his work published in Latin in London in 1701.

Sinclair's book concludes with three chapters of Appendices, the last (Chapter XXII) giving accounts, with portraits of all of them, of eight "persons who attained extraordinary ages," from Isobel Walker, 112 years, to Petratsch Zortan (or Czartan), a Hungarian, who is said to have died at the age of 185 years. To give an idea of the detailed way in which he treats the various parts of his subject, I may mention that in Chapter XV, on the Education and Management of Children, he

A Priuie in perfection.

Here is the same all put together, that the workman may see if it be well.

A. the Cesterne.
B. the litle wa-
ther.
C. the wast pipe.
D. the feate
boord.
E. the pipe that
comes from the
Cesterne.
F. the Screw.
G. the Scallop
shell to couer it
when it is shut
downe.
H. the stoole
pot.
I. the fopple.
K. the current
L. the fluce.
M.N. the vault
into which it
fallies: alwayes
remember that
() at noone
and at night,
emptie it and
leauie it halfe a
foote deepe in
fayre water.
And this being
well done, and
orderly kept,
your worst pri-
uie may be as
sweet as your
best chamber.
But to conclude
all this in a few
wordes it is but
a standing clofe
stoole easilie
emptied.
And by the
like reason (o-
ther forms and
proportions
obserued) all o-
ther places of
your house
may be kept
sweet.

discusses their food, clothing, air, exercise, amusements, habits, health, personal appearance and behaviour, mental

Sanctorius in his Balance.

information, and, lastly, moral and religious instruction. Sir John Sinclair's book was, in fact, the first systematic work on hygiene of the nineteenth century.

The Poor Law in 1800.

By J. MILSON RHODES, M.D.,

President of the Poor-Law Unions Association of England and Wales

GREAT as the progress of the Poor Law during the nineteenth century has been, in no department has the progress been greater than in that portion dealing with the sick poor. During the first third of the century the condition of the sick poor was deplorable in the extreme, whether looked at from the old or the new Poor Law point of view.

Even Thomas Carlyle, who was no admirer either of the "Old Poor Law" or new Poor Law, very properly describes the "Old Poor Law" as founded "on unthrift, idleness, bastardy, and beer drinking." In the earlier part of the century there was no Central Authority, either Poor-law Commissioners or Local Government Board. The consequence was that only now and again, when Parliament, becoming alarmed

at the ever-increasing burden of paupers asked for statistics, could any clear idea of the state of the country as regards "pauperism" be obtained. The overseers of every parish had the power to do what was right in their own eyes; and very peculiar those ideas of right were.

In some of the large towns, like Manchester and Liverpool, "select vestries," or similar administrative bodies, had been established, and had placed the administration of the Poor Law on an improved basis; but still the condition of the sick poor throughout the whole country was miserable in the extreme.

A bad system of Poor-law relief, accompanied by bad laws, had resulted in the utter demoralisation of the poorer classes of this country. That the assertion is no mere figure of speech is proved by the statistics of the time showing the enormous amount of pauperism existing in the first year of the century.

Returns called for by Parliament in 1801 show that, out of a population of 9,000,000, no fewer than 1,000,000 were paupers; roughly speaking, 12 per cent. were burdens on the State. At the commencement of the century war and famine had raised prices to an enormous extent; how heavy the burden upon the ratepayers was may be judged from the fact that the relief of the poor cost in the year 1811 no less than 17s. 6d. a head of the population. To-day, with all our improvements, the cost is only 7s. 2½d. a head.

Enormous as this expenditure was, it certainly did not provide proper medical relief for the poor. Even after the passing of the Poor Law Reform Bill, out of an expenditure of £4,600,026, upwards of £254,000 was simply wasted upon the Law of Settlement and Removal, and only £147,000 was spent on medical relief; so that £100,000 less was expended on the "sick poor" than was expended on useless law costs and the often cruel and dangerous removal of sick and sometimes dying paupers.

In considering the Poor Law of the first half of the century it is necessary to remember that the term "workhouse" was to a great extent a correct description of an institution that is now—with the exception of a few "test houses"—becoming almost extinct. Everyone acquainted with modern Poor-law institutions is well aware that the so-called "workhouse" is really a hospital, an asylum, an almshouse, and a school. The real "able-bodied pauper," especially the "out-door adult able-bodied pauper," who used to be known as the "roundsman," and who was the *bête noire* of our forefathers, is disappearing from the scene, and now only exists as "a sad memory of a melancholy past." Even so late as 1843, out of 88,000 indoor paupers, only 10,000 were classed as sick, and only 146,000 out of 365,000 outdoor patients were so described.

If these figures are compared with statistics of to-day, they prove an enormous improvement in the economic condition of the people. The vast majority of present-day adult paupers are suffering from mental or physical disease—an altogether different class from the able-bodied, idle vagabonds that constituted a large part of the paupers in the earlier years of the century.

How horrible the state of affairs in some of the workhouses was, even as late as 1838, is proved by the records of the Poor-law Commissioners. Dr. Southwood Smith describes the condition of affairs in the Whitechapel Workhouse in the following words: "I was struck with the fact that out of 104 children resident in the House 89 had recently been attacked with fever. On examining the dormitory in which these children slept, my wonder ceased; in a room 88 feet long, 16½ feet wide, and 7 feet high, with a sloping roof rising to 10 feet, live 104 children, together with 4 women who had charge of them slept. The beds are close to each other; in