I have to add, that, if what is usually called TYPHUS FEVER, terminates in death; on examination of the dead body, the seat of local HYPERBIOsis may always be discovered, and will be found either in a highly inflamed state, or perhaps, more commonly in a state of gangrene.

V.

A Treatise on the Nature and Cure of Gout, comprehending a General View of a Morbid State of the Digestive Organs; and of Regimen: with some Observations on Rheumatism. By CHARLES SCUDAMORE, M. D. Member of the Royal College of Physicians, of the Medical and Chirurgical Society of London, &c. &c. 8vo. London, 1816. pp. 389.

We must candidly confess that this book has surpassed our expectations. We have always looked upon gout as a most unpromising subject, and did not expect that any book could be written upon Gout containing so much new or useful information as that before us, or so totally free from every thing like quackery; no small recommendation of a treatise upon a disease, which has always been the hot-bed of empiricism. Dr Scudamore begins his inquiry by examining the definition and nosology of gout by Dr. Cullen, and points out in both various inaccuracies. He objects to its being defined to be a hereditary disease, not from bewildering himself and his readers with metaphysical quibbles about the meaning of the term hereditary, but because gout is more frequently acquired where no hereditary influence can be traced, than where such influence does exist.

Of 77 patients, the number of those in whom the disease was
Hereditary from the father - - - - 21
Hereditary from the mother - - - - 5
Hereditary from father and mother - - - - 3
Of those whose grandfather only had gout - - - - 3
Of those whose grandmother only had gout - - - - 1
Of those whose aunt only in the family - - - - 1
Not known either on the father's or mother's side 43

From which it appears that the cases of acquired gout were to the rest as 43 to 34, and to those immediately hereditary, as 43 to 29.
Cullen’s next character is also not very correct, for a first fit of gout is often excited by evident external causes, as vicissitude of temperature, a sprain, contusion, or any kind of local injury; although, in a person not disposed to gout, the same causes would produce only common inflammation, or some other diseased action, according to the specific disposition of the individual.

The next clause of Dr Cullen’s definition “pain at a joint, and, for the most part, affecting most violently the great toe: certainly the joints of the feet and hands,” Dr Scudamore thinks implies too strongly that a joint is the only seat of true gout, as, especially after repeated attacks, the disease attacks not only the articular structure, but also the tendons and bursae mucose. However, from Dr Scudamore’s own statement, it appears that, of 71 examples, the great toe was the seat of the first attack in 55 cases; some part of the foot alone in 64 cases; the knee in two, the hand and foot in two, and the hand alone in three.

In the same manner Dr Scudamore proceeds to comment upon Dr Cullen’s division of gout into regular, atonic, retrocedent, and misplaced; and, in place of a definition, he gives a concise description of the disease, and proposes to divide it into Acute, Chronic, and Retrocedent gout.

Dr Scudamore treats of acute gout at great length, detailing in succession the premonitory symptoms; the paroxysm in a first and in subsequent attacks; the sequelae; the remote causes, predisposing and exciting; the proximate cause; the ratio symptomatum, diagnosis, and prognosis. For the particulars concerning these, we must refer to the work itself, and shall content ourselves with extracting a few detached observations.

It has been often generally stated, that gout seldom comes on before the age of puberty; but the following table by our author almost settles this point, or at least adds much to the accuracy of our knowledge of the subject. In 64 cases the first attack took place between the ages of

| Age Interval | Frequency |
|--------------|-----------|
| 20 — 25      | 6         |
| 25 — 30      | 17        |
| 30 — 35      | 14        |
| 35 — 40      | 13        |
| 40 — 45      | 2         |
| 45 — 50      | 6         |
| 50 — 55      | 2         |
| 55 — 60      | 3         |
| 60 — 65      | 1         |

By which it appears, that its invasion is restricted to the period between 20 and 65, and that more than two-thirds of the
whole number were attacked between 25 and 40, or in the prime of manhood. Dr Scudamore has also given a tabular view of the form of 118 sufferers from gout.

| Males. | Females. | Total. |
|--------|----------|--------|
| Tall and corpulent | - | - | 41 |
| Short and corpulent | - | - | 12 |
| Middle height and corpulent | - | - | 19 |
| Middle stature and bulk | - | - | 10 |
| Tall and middle bulk | - | - | 6 |
| Short and middle bulk | - | - | 9 |
| Short and slight | - | - | 6 |

In speaking of strong liquors as a predisposing cause of gout, our author clearly shews, that it occurs less frequently in those countries where spiritous liquors are abused, than where wine or ale are habitually drunk. Thus diabetes is more common in Scotland, gout in England. He accounts for this by supposing, that the abuse of spirits destroys the appetite and impairs the digestive process. Gout, indeed, he considers as being truly a disease of repletion, which, however, in its consequences, leads to relative derangement and debility, as indicated by all the symptoms of dyspepsia. The state of the urine has always been considered as an object of importance in gout; and has even been connected with theories of the disease. It has been very attentively considered by Dr Scudamore, and the results of his numerous experiments furnish some new facts. In particular, they tend to shew, that, contrary to the commonly received opinion, gouty urine does not contain an excessive proportion of uric acid, and that Berthollet is also wrong in asserting that the urine of gouty persons, when in health, contains less of the phosphates, than the urine of persons in health not subject to gout, and that in the former the phosphates are increased during the paroxysm to the usual quantity. The circumstances giving rise to these errors are satisfactorily explained.

With reference to the morbid state of the functions of the alimentary canal just considered, the urine also is an abundant source of information, when attentively examined. The quantity secreted is usually scanty, or, even when in natural proportion, is much concentrated. That portion which is passed the first in the morning, should be the particular example for medical observation and examination. A copious deposition of pink or brick-coloured sediment, together with an excessive quantity of mucus, is a frequent appearance; or uric crystals (commonly called gravel) with mucus; or the phosphates mixed with the urates, or separate; or mucus chiefly, with scarcely any other matter in the sediment, also occur. The colour of the morbid urine is various, and modified by different causes;
but, whether more or less deep, it is found, under these circumstances, much increased in specific gravity beyond the natural standard of health. This, from my experiments, which have been very numerous, I should state from 1010 to 1015. In the morbid urine to which I have referred, I have found the density sometimes increased to 1035 and 1040, and very commonly to 1025 to 1030. Its natural acid character almost universally remains, in the recent state; but such highly animalized urine soon becomes alkaline and putrid."

But the deposition of a pink or lateritious sediment, or of crystals, is neither necessarily nor regularly attendant on a paroxysm of gout, and occurs in other circumstances of disease in connection with unhealthy chylopoetic functions. In proportion, therefore, as gout is associated with such disordered functions, and not further, are these sediments connected with that disease.

"Returning now to the question of an excess of uric acid secreted by the kidneys, as indicated by the deposition of the crystals, or the pink or lateritious sediment, and its relation already mentioned to the proximate cause of gout, I have to observe, of the crystals more particularly, that they are not to be considered as a proof of an excess of uric acid; but rather as a separation of this principle from the urine, and a new combination with some other of its elements. If nitric, or muriatic acid, be added to urine of moderate specific gravity which has deposited these crystals, scarcely any further uric precipitate is produced; and having in different experiments carefully estimated the quantity so obtained, with that procured from healthy urine of the same specific gravity by the same methods, I have found the position in question to be fully manifested; equal portions of such healthy urine, furnishing an equal quantity of uric precipitate, with the whole of that spontaneously and artificially precipitated from the morbid urine, with which it was compared." pp. 88, 89.

Dr Scudamore also proves by experiment, that uric acid is only deposited in an abundant quantity from urine of a high specific gravity, which likewise contains the other principles composing this secretion, as the phosphoric, sulphuric, and muriatic acids, and urea in preternatural quantity.

Our author, in bringing Berthollet's opinion to the test of experiment, examined the urine under different circumstances in 37 instances.

"In these experiments, nitrate of lead was the precipitant employed; and the urine was diluted with distilled water. A portion of the urine, first and separately passed in the morning, was, in each case, chosen for examination. The precipitate was carefully dried and scraped from the filter. Of this, a certain quantity was boiled in
water, that the muriate of lead might be removed; and with it also the uric acid was separated. It was then burnt in a crucible for about half an hour, that the several animal matters should be destroyed as much as possible. It was next boiled in diluted nitric acid; and, being allowed to rest, the clear liquor was decanted from the sulphate of lead and some insoluble animal matter. To this, ammonia was added in excess; the precipitate was collected on the filter, dried, and weighed. This was the phosphate of lead, from which the relative proportion of phosphoric acid was estimated, by means of Dr Wollaston’s logometric scale. Equal quantities (four ounces) being always employed, and all circumstances of experiment being alike, it may, I hope, be presumed, that this investigation, by comparative experiments, is entitled to confidence.” pp. 106, 107.

The result is expressed in the following table:

| Exp.                      | Sp. gravity | Nit. of lead | Ph. of lead | Ph. acid |
|---------------------------|-------------|--------------|-------------|----------|
| 1. J. W. gout             | 1.016       | 22           | 13.7        | 2.88     |
| 2. Ditto in health, and two months after recovery | 1.0199      | 18.4         | 4.6         | .96      |
| 3. A. L. gout             | 1.028       | 66.2         | 43.7        | 9.2      |
| 4. Ditto in health, and two months after recovery | 1.0168      | 26.5         | 14.1        | 2.97     |
| 5. J. C. gout             | 1.014       | 28.8         | 4.8         | 1.02     |
| 6. Ditto in health, and three months after recovery | 1.0137      | 16.2         | 4.3         | .91      |
| 7. C. M. gout             | 1.020       | 50.5         | 20.2        | 4.3      |
| 8. Ditto in health, ten weeks after recovery | 1.0107      | 25.4         | 7           | 1.47     |
| 9. E. P. gout             | 1.029       | 71.5         | 30.4        | 6.41     |
| 10. Ditto in health, ten weeks after recovery | 1.0191      | 40           | 19.2        | 4.05     |
| 11. W. W. gout, one day before the attack | 1.0096      | 13.8         | 3.3         | .3       |
| 12. Second morning after | 1.0901      | 55.2         | 25.4        | 5.36     |
| 13. Seventh day of gout   | 1.0099      | 30           | 15          | 3.17     |
| 14. Eighth                | 1.0242      | 46           | 18.4        | 3.88     |
| 15. Ninth day of gout     | 1.012       | 24           | 4.8         | 1.02     |
| 16. Tenth                 | 1.0105      | 28           | 7           | 1.47     |
| 17. Eleventh              | 1.0106      | 32.8         | 16.4        | 3.47     |
| 18. In health, about two months after recovery | 1.0172      | 26.3         | 13.3        | 2.8      |
| 19. J. G. hepatitis, with gouty diathesis | 1.0207      | 57.6         | 19.5        | 4.1      |
| 20. Ditto in health, many months after recovery | 1.014       | 20.4         | 10          | 2.1      |
| 21. J. W. gout            | omitted     | 42.5         | 16.1        | 5.4      |
| No opportunity of comparion. |            |              |             |          |
| 22. J. M. gout            | omitted     | 35.6         | 10.6        | 2.2⁺     |
| No opportunity of comparion. |            |              |             |          |
### Exp.

| No. | Subject                        | Sp. gravity | No. of lead Grains. | Ph. of lead Grains. | Ph. acid Grains. |
|-----|--------------------------------|-------------|---------------------|---------------------|-----------------|
| 23  | T. A. in health, not subject to gout or rheumatism | 1.0113      | 25                  | 13                  | 2.5              |
| 24  | L. S. in health, not subject to gout or rheumatism | 1.0183      | 40.8                | 20.5                | 4.36             |
| 25  | A. J. in health, subject to acute rheumatism       | 1.0173      | 17.4                | 5.6                 | 1.18             |
| 26  | E. J. in health, not subject to gout or rheumatism, but plethoric, and liable to tonsillary inflammation | 1.0217      | 49.2                | 20.4                | 4.31             |
| 27  | H. T. chronic hepatitis                          | 1.0354      | 49.2                | 22.8                | 4.82             |
| 28  | Ditto when in improved health                    | 1.018       | 37.2                | 13                  | 2.75             |
| 29  | J. T. continued fever                            | 1.025       | 32                  | 18.5                | 3.9              |
| 30  | Ditto many months after in full health            | 1.023       | 38.4                | 24                  | 5.07             |
| 31  | S. P. acute hepatitis                            |             |                     |                     |                 |
| 32  | Ditto, feeling in general health two months after; but certainly not free from hepatic affection | 1.0245      | 40                  | 28                  | 5.92             |
| 33  | J. B. nephritis                                  | 1.018       | 36.6                | 17.7                | 3.75             |
| 34  | L. S. acute rheumatism                           | omitted     | 29.2                | 5.1                 | 1.07             |
| 35  | L. M. tabes mesenterica                          | 1.0268      | 51.2                | 23.5                | 4.96             |
| 36  | H. C. continued fever                            | 1.023       | 44.8                | omitted             | omitted         |
| 37  | Ditto in health, two months after recovery        | 1.0154      | 26.6                | ditto               | ditto           |

The next set of experiments which we find introduced into this volume, prove that the actual temperature of a part, when affected with gouty inflammation, attended with severe pain, is by no means so high as the feelings of the patient would indicate.

We have endeavoured to give an abstract of the results of these experiments, by contrasting the temperature of the affected part, with that of the corresponding part in the other side of the body.

**Affected side, acute gout**, 84; 94; 93.5; 87.5; 75.5; 87.5; **Healthy side**, 83; 70.5; 81.7; 75.5; 69.5; 75.5; **Affected side, chronic gout**, 96.5; 86; 95; 96; **Healthy side**, 84; 74; 93; 93.

From these facts it is evident, that although a part affected with gouty inflammation, and giving a sense of intolerable heat to the patient, has its temperature actually increased in some instances by many degrees, in no case did the actual temperature
amount to the heat of the internal or central parts of the body, as indicated by the thermometer placed under the tongue or in the axilla. The same observation was made in regard to rheumatic inflammation, whitlow, and ulcer from a burn. It even appears, that the increased temperature of an inflamed toe or finger, giving rise to the sensation of burning pain, is seldom so great as that of a sound part of the same limb a few inches nearer the trunk.

The treatment of gout is considered at very great length. He begins by observing, that "the prohibitions of Sydenham against the least interference in the paroxysm, long exerted a powerful influence on medical practice, an influence which still continues to this day to have a considerable force." But this opinion, he shews, was derived from the humoral pathology; and although he admits, as a general position, that nature is seeking a remedy for herself in a fit of the gout, and also that, if her purpose were always accomplished with as much success as in a first fit, the physician might, with propriety, stand by as a looker on, merely admiring the vis medicatrix nature; but as, in truth, the disease not only returns frequently, but returns with constant increase of strength, and the remedial efforts of nature, which were at first so satisfactory, become tedious, irregular, and uncertain, our author thinks

"that we are paying her sufficient respect, in attentively seeking to discover the kind of evil which she has to remedy; taking all her indications for our guide, and acting truly as her servants; but not with fettered hands."

"I would assume it therefore as a principle, that we should attempt the prevention of a fit of gout, if warned of its approach, and interrupt its progress when formed, unless such a state of the constitution exist, that the gout has taken the place of another more serious disease, or may be expected to prevent one which is threatening, and more to be dreaded than itself." p. 146.

He then proceeds to treat, first, of the premonitory symptoms, and then of the paroxysm; and, under the last head, he passes under review all the remedies that have, at any time, been recommended, as well as the various local applications. For his judicious observations on these, we must refer to the work itself, and shall only observe, that he is hostile to the use of the Eau medicinale, and all the pretended specifics, upon grounds which are perfectly satisfactory. Although he opposes the practice of Dr Kinglake, as derived from erroneously considering the disease as being entirely local in its nature, yet he recommends a less active application of cold as a palliative remedy against the burning sensation of the affected part.
It had long since appeared to me, that a more gradual exhaustion of the inflammation, and a more soothing mode of effecting this than can be obtained by active cold, might be free from all the objections and disadvantages of the treatment in question. It seemed also not unreasonable to expect, that a moistened evaporating surface would procure very different sensations to the patient, from those which accompany the dry and burning heat of skin, which gouty inflammation so certainly produces.

I have now the satisfaction to state, that, in about forty cases, I have made trial of the following lotion, with the best success:

\[
\text{R. Alcoholis } \frac{3}{8} \text{viii.}
\text{Misturas camphora } \frac{3}{8} \text{vi. M.}
\text{atque ad additionem pauli aquae calidæ, et partibus affectis}
\text{constanter adhibeatur.}
\]

The evaporation which the alcohol alone would occasion, is advantageously restrained by this dilution; and the addition of a sufficient quantity of very hot water, is for the purpose of producing a temperature, just agreeably lukewarm, and furnishes a prompt and convenient method of employing the lotion, on the principles on which I recommend its adoption. If it be applied either hot or cold, the intention of the remedy is frustrated; and I have observed, that, from being made too warm, its operation has been injurious, rather than beneficial.” pp. 184, 185.

Dr Scudamore has printed eight cases, at considerable length, illustrative of the principles of his practice, which, our readers will anticipate, do not lay claim to any novelty, but only to rational selection.

The following note on the action of reagents on urine, which occurs in the first case, deserves notice, as generally applicable where the chemical analysis of the urine is of use, and especially to be kept in view, when examining dropsical urine, in reference to the opinions of Dr Blackall.

“I have invariably found, that the first urine of the morning, such even as is secreted in good health, immediately becomes turbid with infusion of galls, and with the solutions of oxy-muriate of mercury, and of alum. The precipitate which subsides is more or less abundant, and dense and coloured, according to the proportion of saline and animal matter present, and the consequent high specific gravity of the urine. The galls occasion the darkest coloured precipitate. That from the oxy-muriate of mercury is usually the most dense, and is often coloured of a reddish hue. It has the appearance of pus mixed with water, and a little coloured. The precipitate produced by the solution of alum is more white and flocculent, and possesses also uric acid, deposited in crystals.

“Mr Cruickshank has erroneously described the effect of the oxy-muriate of mercury, as being an indication of disease, in the following words (Rollo on Diabetes, 2nd edition, p. 443):— ‘The cor-
Mr. Astley Cooper, to ascertain the comparative solvent power of the gastric juice on different articles of food. The experiments were made in as uniform a manner as possible upon dogs, which were killed, when a given time had elapsed after the substances had been forced down the throat, and the loss which 100 parts of each had sustained by digestion, ascertained by weighing. Raw food, and the lean parts of the meat only were given, except when the contrary is expressed, and the form in the 1st, 2d, 3d, 4th, 6th, 7th, 9th, and 10th experiments, was long and narrow; in the 5th, it was square, and in the others it is not stated.

Exp. 1. One hour. Pork lost 10; mutton 9; veal 4; beef 0. 2. Two hours. Mutton 46; beef 34; veal 31; pork 20. 3. Three hours. Pork 98; mutton 87; beef 37; veal 46.
Dr. Scudamore on Gout.

Exp. 4. Four hours. Pork 100; mutton 94; beef 75; veal 69.

5. Four hours. Cheese 76; mutton 65; pork 86; veal 15; beef 11.

6. Two hours. Cod-fish 74; beef 0; rabbit 0.

7. Time not specified. Fat 70; cheese 29.

8. do. Beef 100; potatoe 43.

9. do. Boiled veal 30; roast veal 7.

10. do. Boiled veal 31; roast veal 2.

11. Four hours. Fat 100; muscle 36; skin 22; cartilage 31; tendon 6; bone 5.

12. Three hours. Thigh-bone 3. Six hours. Scapula 100. Six hours and an half. Thigh-bone 30.

Each of these experiments was, of course, made upon a different animal, and the irregularity of the results shews, that, notwithstanding the able manner in which they were conducted, a frequent repetition of them would be necessary to enable us to draw conclusions with any degree of confidence. Besides, it may admit of a question whether quick solution in the stomach be a proof of easy digestion. As far as we can judge from these experiments, the following is the order of solubility in the stomach of the dog: codfish, fat, cheese, pork, mutton, beef, veal, skin, cartilage, potatoe, tendon, bone.

Chronic and retrocedent gout are also treated of with great judgment; and this part of the work is concluded with a table of the analytical mode of investigating a case of gout, and the general history of the disease, which was adopted by the author.

As connected with the subject of gout, Dr. Scudamore has lastly subjoined some observations on rheumatism, chronic and acute, and, from the whole performance, he has established his character, not only as a judicious observer of disease, but as a scientific inquirer, and good writer.

VI.

Practical Illustrations of Typhus and other Febrile Diseases. By John Armstrong, M. D. 8vo. London, 1816. pp. 305.

The theories of fever which so much engaged our attention some twenty years ago, are now quietly entombed with their celebrated inventors, Cullen and Brown; and as, very happily, no tub so alluring and seductive has since been cast out to the whale, he has gradually recovered from his delirium, and be-