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## MEMOIRS

## OFTHE

## MEDICAL SOCIETY

OF<br>$L O N D O N$,

INSTITUTED $1 N$ THE YRAR 1773.
V O L. Vİ.

LONDON:

PRINTED FOR SONGMAN, HURST, REES, AND ORIUE, PATERNOSTER-ROW.

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1805
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## 4



## PREFACE.

IN a fcientific age, when medicine is cultivated in the moft liberal manner, it might be prefumed, that a Society happily inftituted for the purpofes of promoting medical knowledge, would meet with fupport and countenance adequate to the attainment of thele important objects. In proof of which, we are enabled to remark, that the Members of the Society are nearly doubled in number, fince the publication of the laft volume of its Memoirs.

It will not be deemed that the communications read at the Meetings of the Society, and the practical difcuffions that are offered, although highly important, conftitute the fole advantages which its members, and ultimately the public derive, when it is confidered, that the library in poffeffion of the Society, con-

$$
\text { A. } 2 \quad \text { tains }
$$

tains upwards of ten thoufand volumes, many of them of fingular rarity and value, which are always acceffible to its Members.

The Society, ever anxious to record hiftories of epidemic, contagious and popular difeafes, took an early and active intereft in collecting and preferving materials for elucidating the hiftory of the late Influenza; which it was enabled more extenfively to do, in confequence of the indulgence granted by the Poft-Mafters General, and the polite affiftance of Mr. Freeling Secretary of the Poft-office, to allow the Effays fent to the Society on this fubject to pafs free of poftage, which the Society cannot but gratefully acknowledge; and at the fame time, truft, that the great body of ufeful information thus collected will amply repay to the public any deduction occafioned by this liberal facrifice.

The Society, continually zealous to enlarge the field of Medical Science in every direction, have perfevered in rewarding genius, by conferring Medals on the Authors, whofe Communications have been judged the moft meritorious.

In the Year 180 I .
To Dr. Bouttatz, for his Paper on the Medicinal effects of Phofphorus. The Fothergillian Gold Medal.

To Dr. Jofeph Adams, for his Paper on Frambroefia Guineaenfis, A Silver Medal.
1802.

To Dr. Falconer of Bath, for his Paper on Ifchias, A Silver Medal.

## 1804.

To Dr. Edward Jenner, A Gold Medal, for his invaluable Difcovery of vaccine Inoculation, made when he was a Member of no other literary Society.
To Dr. Boftock, for his Paper on Diabetes, A Silver Medal.

Further to promote the exertions of genius, and more extenfively to call forth abilities, which otherwife might remain dormant, the Prefident has liberally propofed to prefent Medals, according to regulations mentioned in Article LXXXIII. Page 618.

The Society likewife propofe to confer the Fothergillian Gold Medal, upon the Authors of the beft Effays, on the following Subjects:

## Queftion for the Year $\mathbf{1} 806$.

What are the diforders that have been miftaken for fyphilis, and how are they to be diftinguifhed from it?

For the Year 1807.
The beft account of the epidemic fevers, which have prevailed at various times in North America, Spain, and Gibraltar, fince the year 1793, and whether they are the fame or different difeafes?

## For the Year 1808.

What are the beft methods of preventing and of curing epidemic dyfentery?

$$
\text { For the Year } 1809 .
$$

What are the criteria by which epidemic diforders that are not infectious, may be diftinguifhed from thofe that are?

For the Year isio.
What are the qualities in the atmofphere mof to be defired under the various circumftances of pulmonary confumption.

## Regulations refpecting the Medals.

I. Each Differtation fhall be delivered to the Secretary, in the Latin, Englif, or French Language, on or before the firft Day of November, in each preceding year, except the Paper in reply to the firft queftion which will be received any time before December 31, 180 g.
2. With each Differtation fhall be delivered a fealed Packet with fome Motto or Device on the outfide ; and within, the Author's Name and Defignation; and the fame Motto or Device fhall be put upon the Differtation, that the Society may know how to addrefs the fuccefsful Candidate.
3. No Paper with the Name of the Author affixed can be received; and if the Author of any Paper fhall difcover himfelf to the Council, or to any Member thereof, fuch $\mathrm{Pa}-$ per fhall be excluded from all competition for the Medal.
4. All Differtations, the fuccefsful one excepted, fhall be returned, if defired, with the fealed Packets unopened.

The Society continues to offer two Silver Medals annually; one to the Author of the beft Effay, read before the Society within the year, by a Fellow, that is, any Member who refides within feven miles of London; the fecond, to the beft Effay by any other perfon.

We cannot conclude without expreffing the fatisfaction we feel, in experiencing the high reputation, which the Society has extenfively acquired; and gratefully acknowledging the politenefs of many fcientific bodies, in prefenting to it their own learned works; at the requeft of the Royal College of Medicine of Berlin, the propofitions they have tranfmitted to the Society, are inferted as the fubject is highly interefting to the world at large.

A LIST OF THE PRESENT OFFICERS DF THE MEDICAL SOCIETY OF LONDON,

To any of whom Communications may be addrefed.

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## CONTENTS

OF THE

## SIXTHVOLUME.

ART.
I. $O^{N}$ the Morbus Cardiacus. By William Falconer, M.D. F.R.S. \&c. of Bath, Page I
II. Cafe of Angina Pectoris, with a Diffection. By Samuel Black, M.D. of Nerwry, Ireland, 41
III. Cafe of Hydrocephalus Internus, terminating fucce/sfully. By Mr. Edmund Pitts Gapper, Surgeon, Ervell, - 50
IV. Cafe of a Blue Cbild. By Edward Thomas, M.D. of St. Kitt's,
V. Cafe of obfinate Hepatic Dijeafe. By J. C. Lettfom, M.D. \&c. 62
VI. Caje of remarkable Scrotal Hernia. By James Lee, M.D. Spaniß.Town, Famaica, - 70
VII. Cafe of Croup, fuccefsfully treated by Emetics. By John Smith, Surgeon, C.M.S. \&c. 74
VIII, Cafe of Opifthotonos fuccefsfully treated. By the Same,

Art.
IX. On the Origin of the Cow-pax. By Js. Head Marfhall, M.D. Sic. - Page 80
X. Cafe of Framberefia Guincaenfis. By Jos. Adams, M.D. formerly of Madeira, nozu of the Smallpow: Hofpital, - - 82
XI. Cafe of Extranuterian Fatus. By A. Fothergill, M.D. F.R.S.

107
XII. Cafe of invertid Uterus after Pariurition. By Mr. Theophilus Dyfon, Surgcon, F.M.S. 118
XIII. An Accomnt of an' extrnordinary Atafs of Difenfe. found in the left Cavity of the Thorax. By Mr. J. Carden, C.M.S. Sureon to the Worcefer Infirmary,
XIV. Hifory ana Difection of a Cafe of intefinal Ulceration, with Remarks. By Mr. H. Field, I.N.S.
XV. Hijory of a peculiar morbid Appearance of the Heart. By Mr. J. H. Spry, F.M.S. Surgeon, 137
XVI. Cafe of Wound in the Pcroncal Artery. By Mr. J. C. Cam, Surrgoon, Bath, 151
XVII. On the TVtrie O $\operatorname{nyg}$ of Bifmuth. By A1. Marcet, M.D. F.M.S. 155
XVIII. On the UJe of the Buth Waters in Hip-Cafes. By W. Falconer, M.D. C.M.S. Bath, 174
XIX. On the Pofition of Patients; during Lithotomy. By Nathanicl Smith, M.D. Neru Hamp/fire,

Art.
XX. Caje of a great Enlargenient of the Scrotum. By F. R. Broadbelt, M.D. of Famaicn, Page 232
XXI. Truo Ciafes of Diabetes, wilh Obfervatisns. By J. Bollock, M.D. C.M.S. Liverpool, 237
XXII. On Infuenza-Circular Letter of the Medical Society of London, to its Correfponding Members,

265
ANSWERS to the Circular Letter of the Medical Society of London, on the Influenza.

Art.
XXIII. Aulzers. By Luke M'Can, M.D. Armagh, Irciand, - 272
XXIV. - By R. Percival, M.D. Dublin, $29^{\circ}$ XXV. - By Dr. Longfield, of Cork, 293
XXVI. - By Mr. Evans, Surgeon, of Rofs, 299

XXVII, By James Flint, M.D. Prefefor of Medicine, St. Andrew's, - 300
$\begin{array}{r}\text { XXVIII. } \\ \text { haven, } \\ \text { by Jofhua Dixon, M.D. White } \\ \text { - } \\ \hline\end{array}$
XXIX. - By Dr. Collingwood, Sunderland, 318

XXX . - By Mr. Waiblinger, of Fulneck, York/bire, - - 326
XXXI. - By Dr. Bertram, of Hull, - $33^{\circ}$

XXXII, By Mr. C. Ellis, of Hull, 339
Art.

ART.
XXXIII. Anfwers. By Mr. Crowther, of Halifar, Page 343
XXXIV. - By Mr. Jeffrefon, of Pontefract, 347
XXXV. By Mr. Jonathan Binns, of Ack. worth Sclbool, - - 350
XXXVI. ——By Dr. Oakly, of Mirfield, - 354
XXXVII. -By S. A. Bardfley, M.D. Pbyjician to the Manchefter Infirmary, - 358
XXXVIII. By Mr. W. Knipe, of Garfang, 375
XXXIX. -By Thomas Hull, M.D. Retford, 380
XL. By Mr. Bihhop, of Leicefer, - 390
XLI. $\sim$ By Mr. H. Swan, Surgeon, Lincoln, 398

XLII. | Trent, By Mr. John Whately, Burton on |
| :---: |

XI.III. —By Mr. Trevor Jones, Litchfield, 406
XLIV. By Mr. G. Hickman, Burflem, Staffordfire, - 411
XLV. -By Mr. J. Evans, Ketly, Shrops. 416
XLVI. - By Mr. T. Dugard, Sbrewifoury, 42 x
XLVII. By Mr. Ed. Jones, Montgomery, 428
XLVIII. - By Mr Raymont, Surgeon, Worcefer, 433
XLIX. $\begin{gathered}\text { cefler, } \\ \text { By Mr. Jas. Field, Surgeon, } \\ \text { Wor- } \\ 437\end{gathered}$
L. By Dr. Cameron, Worcefler, 441 Art.

## ART.

LI. Auffers. By Mr. C. P. Wilfon, Surgeon, Worcefer, - - Page 447
LII. $\underset{\text { cefer, }}{ }$ By Mr. J. Nafh, Surgeon, Wor-
LIII. By Mr. Frycr, Surgeon, Berodly, 453
LIV. - $B_{V}$ Mr. Cuftance, Kiderminfler, 454
LV. - By Nir. Horniblow, Shipfon on

Stour, - - 459
LVI. - By Samuel Alvey, M.D. St. Neot's, 462

> | - LVII. |  |
| ---: | :--- | ---: | ---: |
| Yarmouth, Thomas | Girdleftone, M.D. |

LVIII. ——By Mr. Webter, of Denbam; 479
LIX. —By Mr. Crowfoot, Beccles, Suffolk, 483
LX. - R. White, M.D. Bury St. Edmund's, $49^{\circ}$
LXI. - Mr. Godfrey, Coggerf/ball, 498
LXII. — Mr. J. Finke, Saffron Walden, 50 I
LXIII. $\longrightarrow$ Mr. Hanker, Woburn, 505
I.XIV. Mr. Lucas, Hatfeld, 507
LXV. - Mr. Judfon, Ware, - 514
LXVI. Mr. Robinfon, Crutched Friars, 517
L.XVI*. Martin Wall, M.D. Oxford, 52 L
LXVII. - James Woodford, M.D. - 533
LXVIII. - Mr. Buhh, Froome, - 539
LXIX. —— Mr. Melhuifh, Tiverton, 543
LXX. — By Dr. Kinglake, Taunton, 545
LXXI. By Wm. Woolcombe, M.D. Ply-

Art.
LXXII. Anfwers. By Mr. Harper, of Gofpors, Page 565
LXXIII. - Mr. Rowe, Portea, - 57 I
LXXIV. Mr. Waller, Go/port, - 575
LXXV. John Lind, M.D. Hafar, 577
LXXVI. $\quad$, Reigate, $57^{8}$
LXXVII. W. Vaughan, M.D. Rochefier, 582
LXXVIII. - Mr. Hodfon, Lewes, - 592
LXXIX. - Leonard Gillefpie, M.D. Martinigur, 596
LXXX. Mr. Copeland, on the Fithonthripic Power

$$
\text { of Muriatic Acid, - } \quad \text { - } 01
$$

LXXXI. James Sims, M.D. on the Corw-pock, \&c. 604 IXXXII. Letter of the Jupreme Pruflan College of Medicine and Health, with a Propectus, \&c. 6ra LXXXIII. Medals to be beforved by the Prefident in Future, - - 618 Donations to the Society, - $\sigma_{19}$

## LIST OF AUTHORS.

| A | Collingwood, Dr. on do. Page 318 |
| :---: | :---: |
| Adams, Jof. M.D. Cafe | Copeland, Mr. on Muriatic |
| Frambrefia Guinea- |  |
| Is, Page 82 | Crowfoot, Mr. on Influ- |
| Alvey, Dr.onInfluenza, 462 | enza, 483 |
| B | Crowther, Mr. on do. 343 |
| Bardfley, Dr. on Influenza, | D |
| 358 | Dixon, Dr. on do. |
| Bertram, Dr. on do. 330 | Dugard, Mr. on do. 42 I |
| Binns, Mr. Jn. do. 503 | Dyfon, Mr. Cafe of inverted |
| Bihhop, Mr. do. $39^{\circ}$ | Uterus, II8 |
| Black, Samuel, M.D. Cafe of Angina Pectoris, 4 I | E |
| Boltock, Dr. on Diabetes, | E |
| 237 | 339 |
| Broadbelt, Dr. Cafe of enlarged Scroium, 232 | Evans, Mr. on do. 299 |
| Buh, Mr. on Infuenza, | F |
| 39 | Falconer, Dr. on Morbus Cardiacus, |
| Cam, Mr. on vocund in the Peroneal Arterý, <br> I5 1 | - on Hip-Cafer, |
| Cameron, Dr.on Influenza, | Field, Mr. on Intertinal |
| 441 | Ulceration, 128 |
| Carden, Mr. on an exiraordinary liteafe, <br> 122 | --, Mr. J. on Infuenza, |
| Cuftance, Mr. on Influenza, | Fike, Mr.on do. 50 I |
| 454 | Flint, Dr. on |

## ERRATA.

Page 338, ). 34 for fpring 1302 , read fpring 1782
3?2, 1. 5, for F.M.S. rend C.M.S.
318, 1. 1, fis XXIV. riad XX1X.

1. 1, for P. 144 , read 441 .

534, 1. 2 for LX, read LXV.
5:7, 1. 2, for LXI, read L.XVI.
527, 1. 2, for LXIl, read LXVI*.
333. 1. 42 for Almsford, rad Alsesford,

## M E M OIRS, \&c.

ARTICLE I.
Sketch of the fimilarity of Ancient to Modern Opinions and Practice concerning the Mor.bus Cardiacus.

BY WILL. FALCONER, M.D. F.R.S. E'c.
Read October i6, 1786.

## INTRODUCTION.

Ilation, to furvey the revolution of medical opinions. What the Poet fays of the hufbandman and of the feafons, is almoft equally applicable to a feries of theories in Mew dicine,
—redit - labor actus in orbem,
Atque in fe, fua per veftigia, volvitur annus:
Virg. Georgic.
During the whole of the laft century, and a part of the prefent, the ufe of opiates* and

[^0]wine in feverifh diforders was very common, and particularly in fuch as were efteemed to be, in the language of thofe times, of a malignant quality or difpofition. This practice was gradually laid afide, and the ufe of neutral falts, and other cooling medicines introdiuced. It was, however, foon difcovered, that this new mode of practice would not fuit every cafe that came under the denomination of fever. The late juftly celebrated Dr. Fothergill was among the firft who pointed out, not its inefficacy only, but its mifchievous effects alfo, in the ulcerated fore-throat, a fever evidently of a malignant nature. Wine and cordials were again reforted to, and with fuccefs. At prefent the ancient practice is ftill farther revived, and opiates as well as wine, are fuccefsfully adminiftered. There is, I think, reafon to belicve, that all thefe changes were made from obfervation of the bad effects of the practice immediately preceding, and I apprehend with reafon. How then fhall we account for the revival of a practice which experience had fhewn to be unfuccefsful? It appears to me, that this may be explained upon the following principles. The caufe of diforders of the above-mentioned kind,
kind, was, at that time, imagined to confift in the prefence of fome noxious fubftance or humour, the feat of which was principally in the animal fluids. This was thought neceffary to be expelled, and the obfervation, that many flight fevers had a kind of natural termination by perfpiration, caufed this difcharge to be deemed the moft eligible method of carrying of what, in their judgment, was the caufe of the difeafe. Opium therefore, wine, and other cordial medicines, were not adminiftered fo much with a view to invigorate the fyftem, and to fupport the fpirits, as with an expectation of their acting as fudorifics, and by that means evacuating the offending, or, as it was then termed, peccant matter. This intention they endeavoured to fecond by the application of external heat. Large fires in the chambers of the fick, heavy bed-clothes, and many attendants affembled there, together with a fudious attention to exclude the fmalleft ingrefs of frefh air, were all meant to contribute to this purpofe.

Experience however of the ill-fuccefs of this practice, opened at laft the eyes of the medical faculty, and indeed of mankind in general. It was therefore changed; but inftead of being B 2
fubjected
fubjected to a candid examination, which might have determined what parts of it were exceptionable, and what proper to be retained, it was difcarded altogether.

This indifcriminate rejection has, I apprehend, contributed to poftpone confiderably the knowledge of a moft ufeful remedy. The exhibition of opiates is not, more than that of wine, neceffarily connected with the application of external heat. The ancient phyficians employed both the above remedies in juch cafes, and accompanied them with the ftrongeft recommendation of coolnefs of temperature, and the admiffion of frem air, and in all probability their practice was for * the moof part fuccelsful.

The revival of thefe remedies in the prefent age, may fuggeft an ufeful caution to medical practitioners againt a general and precipitate alteration in every part of any mode of practice that has been of long ftanding.

General fyftemis of practice that have been long in ufe, are feldom wrong in every point; they have probably been, in a good meafure,

[^1]the refult of experience; and if, in fome inftances, they have been carried to too great a length, or mifdirected by erroneous opinions or fanciful analogies, we may curtail their extravagancies, and correct their miftakes, and retain notwithftanding fomething ufeful. We have feen the ufe of wine and opium condemned in diforders wherein the lateft experience has thewn thern to be efficacious remedies; and we have reafon to think, that this prejudice arofe in a great meafure from their having been formerly ufed in conjunction with a regimen with which they had only a cafual connection, founded on a mifaken theory. The father of phyfick has cautioned us againft precipitate decifions of every kind, by declaring, that " judgment is difficult, as well as "s experiment is hazardous."

Comparifon between the ancient and modern Defcriptions, and Method of Cure, of the Morbus Cardiacus, or Nervous Fever.

Ancient Names of the Dijeafe. Modern Names of the Dijeafe.
Nooos xx̧diaxos. Arctai et Siow nervous fever. HuxGaleni. bam.
Morbus Cardiacus. Calfa, Febris lenta vel nervofa. Plinii et Calii Aureliani. Home.

Typhus nervofus. Sauvage
Typhus mitior. Cullcn. Low fever. Wall.

Defcription and Symptoms of Defcription and Symptoms of the Dijenfe, ascording to the Difeafe, according to. the ancient Writers. the Moderns.
A difpofition to the Morbus Cardiacus is iadicated by a diminution of the natural ftrength, and by lownefs of fpirit: *. Ga. leni Finitiores MIcdicr.

Lifteffiefs and eeneral wearinefs, like what is felt after great fatigue. Huxbam on Firers, cap. vii. Lifleffnefs. Wrall, p. 3 . Unufual fatigue after motion or exercife. HHome, part ii. § 2. Princ. Nied.
Loathing of food. Colii Naufea and difrelifh ofevery. Aurclian. lib. ii. c, xxxii. food. Huxibam, cap. vii. Loathing of food, naufea. Wall, p. 4 .

* Carciaca difpofitio ef innati roboris labefactatio \& languor. N. B. The Latin tranflation of Galen, printed at Venice, apud Juntas, A.D. $156 ;$, is referred to in this work.
+ Inufitarâ laffitudine poft motum.
Derpondency

Defpondency of mind. Involuntary tears.
Calii Aurel. Ibid.

Heavinefs and dejection of fpirits Huxbam, cap. vii.
Dejection of fpirits, anxiety, agitation, moaning. Wall, p. 4.

Dejection of fpirits, involuntary groans, terror of mind. Home, Ibid.
Tremulous voice. Ccelii Speech very inarticulate and Aurel. Ibid.

Pale countenance. Coolii Aurel. Ibid.
Hollow eyes. Coelii Aurel. Ibid.

Refpiration Mort, difficult and laborious. Colii Aurel. Ibid.

Great weaknefs of body. Celf. Iib. iii. cap. xix.

Tongue fometimes moif, at others deftitute of its natural moifture, and dry. Coel. Aur. lib. ii. cap. $3^{22}$. In fome inffance the songue is found rough and

Refpiration laborious, and interrupted with fighing or fobbing. Huxh. Isid. Oppreffion of the parts about the heart, and difficulty of refpiration. Home, Ibid.
Weaknefs and tremor of the hands, and general mufcular debility. Wall, p. 4.

Great proftration of ftrength. Home, lbid.
'The tongue at the beginning is feldiom or never dry or difcoloured, but fometimes covered with a thin whitifh mucus; at length, indeed, it appears very B 4 dry
dry. Coel. Aur. lib. ii. dry, red, and chapped. cap. 33.
Tongue rough, dry, and dark colcured. Arcticus Fiuxham.
Tongue ai firf white afterwards brown. Wall.
on the Cure of acute Diforders, lib. ii. cap. 3 .

Want of flecp. Aretaus Ibid
Little fleep. Cal. Aur. lib. ii. cap. $3^{2}$.

Conftant watchings. Ca!! Aur. lib. ii. cap. 32.
In fome a fweat comes on, that is fuddenly collecied upon the furface of the whole body. In fome cafes this is at firft, only upon the face and neck, when it is fmall in quan-

The patient is commonly quire void ol fieep. Huxh. No real fleep. Wall. A ftate of waking very much refembling neep. Home.

Frequently profufe fweats pour forth all at once, about the 9 th, loth, or 12th day, commonly coldifh and clammy on the extremities. Huxham, Profufe fweats. Home. tily, thin and watery. From thence it rpreads over the whole body, and then is profule, thick, glu:inous, vifcid, and of an ill imell, refembling the waflings of fleh meat. Col. Aur. lib ii. cap. 32.
Immoderate fweats. Celf. Ibid.
Immoderate fu'cats. Galen.
Profufefweats. Aretceus.
Sweats on the face and breaft, Aitii, 438.

Urine pale and watery, with white clouds. *Galen de Dynamidiis.

The urine is commonly pale, and often limpid; frequentiy of a whey colour, or like vapid fmall beer, in which there is either no manner of fediment, or a kind of loofe matter, like bran, irregularly fcattered up and down in it. Huxbam.
The urine was almolt limpid. Wall.
The heats and chills are uncertain and unequal. Huxbam.
No great beat. Home.
A high colour and heat in the face, whilft the extremities are quite cold. Hurbam.

A heat of the Intefines, as
it were from fire, whillt the extremities are cold: the hands and extrene parts of the feet are very cold. §Aretaus.
Pulfevery fmall, frequentand tremulous. ** Aretaus.

The pulfe quick, weak, and unequal; fomerimes for

* Urina alba et aquofa cum nebulis albis.
+ Neque fervor plurimus, fed magis in aliis parvus corporis partibus.
$\ddagger$ Geruum gelidus ftupor, et cubitórum, et tibiarum.
|| Extremarum patium frigiditas.




Pulfe very fmall and weak. * Celfus.

Pulfe quick, frequent and low. +Cal. Aurel. $\ddagger$ 压.

$$
\text { p. } 435 .
$$

Pulfe frequent, quick, fmall, weak, and, as it were flowing. In the progrefs of the difeafe it beconses funk, oblcure, tremulous, crecping, and at the fame time irregular and failing. \|Calius Aurel.
Faintings on the accers of the complaint. § Cial. Aurel.
See alfo Aretaus on the cure of this difeafe.
a few minutes flow, nay, intermitting; fometimes fluttering. Huxham. Pulfe exceedingly quick; feldom lefs than a hundred and thirty, and generally very feeble. Walls Pulfe quicker and weaker, than natural. Sauvage Nof. Method. Typhus nervofus.

The load on the præcordia, anxiety and faintnefs, grow more urgent, and they often fall into an actual delirium, efpecially if they attempt to fit u . Huxham.

Caujes of the Dijeafe af- Caujes of the Dijeafe affigned by the Ancient Au- Jigned by the Moderns. thors.
It takes place after immo- It mof commonly attacks derate abffinence, or ill- perfons of weak nerves,

* Venarum exigu:, imbecillique pulfus funt.
+ Pulfus celer, denfus, humilis.
$\ddagger$ Pulfus obfcurus.
|| Puifus ćenfus, celer, parvus, imbecillus, inanis, et quafi fluens: irccefcente pafione ectiam demerfus, obfcurus, tremu. lus, et formicabilis, et inordinatus ac deferens.
§ Animi defectus imminentibus acceffionibus.
timed bleeding, or when any other imprudent evacuation has been ufed.Galen. Medicus, P. 56. Edit. Juntas, Venet.
The caufes that produce this complaint are many and various, but efpecially long continued indigeftion or intemperance in wine, or ufing the baith after meals, or taking emetics after fupper, or the paffions of grief or fear, which producing effects fimilar to the natural tendency of the conititation, diffolve the body in violent fweats. * Cal. Aur.

Ancient Method of Cure. Indication I.

To reflrain the Sweats. It is proper to ure reveral efficacious remedies, both
a lax habit of body, and a poor thin blous; thofe who have fuffered great evacuations, a long dejection of fpirits, immoderate watchings, fludies, fatigue, and the like; and alfo thofe who have ufed much crude, unwholefome food, vapid impure drinks, or who have been confined long in damp foul air ; that have broken the vigour of their confitutions by falivations, too frequent purgings, immoderate venery, \&c. Huxibam.
Defpondency of mind is reckoned among the caufes of putrid difeales by Dr. Letifom, p. 5.

## Modern Metbod of Cure.

Indication I.
To refrain the Sweats.
Profufe fweats fhould never be encouraged. Huxbain.

* Sed procedentes caula quibus hac pafio fufficitur mulia atque varix funt: magis antem jugis indigeftio, vel vinolentia aut poit cibum lavacra, aut polt connm vomitus aut maltitudo vel timor in qua confentiens corpus folvitur in fudores.
to reftrain the fweats, Profufe fweats are feldom and refiore the firength. * Aretaus.

The firft attempt to be made towards the cure is, to apply aftringent cataplafms to the precordia, and the frecond, to reftrain the fweats. $+C_{e}$ ljus.

1. By internal Remedies.
a. By Ifine.

If however a profure fweat fhould break out, and the pulfe fhould fail, the voice become acute, and the breaft grow cold, it is proper to give as much wine as the paticnt can drink, for in fuch circumftances, wine affords the only hope. $\ddagger$ Arcirus.
or never advantageous. Huxbam.

1. By internal Remedies.
a. By W'ine.

In fuch profufe colliquative fweats, I have very frequently given a little generous red wine, diluted fomewhat, if necefiary, with the greateft advantage, it prefently moderating the fweat, $8: c$. Huxham.

> b. By Opium.
2. Fy Opium.

A circumftance is often ob- Wall on the Synochus, ferved in the Morbus CarCare I. and Care Vilis. diacus, in which there is



+ Curatio prima eft fupra prixcordia imponere que reprimunt, cataplafm ta: fecunda fudorem cohibere.



the greateft neceffity for employing theriaca. For when the body is melted down by profufe and continued fweats, and the ftrength fails fo much that even wine will not afford a fufficient fupport to enable the patient to refift the diforder, when this is given it proves a remedy, and as it were roufes the decaying ftrength, and reftores health to the fick. Galen. de Theriacâ ad Pifonem, p. 96.

> c. By Peruvian Bark.

Huxham on Fevers, p. 89: Edition the third.
Lettfom's Nied. Memoirs, Cafe XXXV.
Home Princip. Medicin.
d. By cold Liquors.

Lettfom's Med. Memoirs: paflin.
d. By cold Liquors.

Let what he takes at the beginning of the diforder be warm, but afterwards all cold, if no internal inflammation be prefent. * Aretrus.

It is proper to give drink cold, in point of temper-


ature, in fmall quantities, and at fmall intervals, that the body may not be weakened by being as it were deluged with liquids, but rather ftrengthened by the contact of a cold body. *Cal. Aurcl.
2. By caternal Applications. a Of cool Air.
The paticnt fhould be covered lightly with cluthes, and placed in a cool place with the windows open, fo that a thorough draught of air may come upon him. + Celfus.
Let him lie in a cool air, in a chamber of a northerly afpect, that the cool northerly breezes may blow upon him and recal to life, his almoft departing foul. $\ddagger$ Arctaus. ELiii, $43^{\circ}$.
If the place be not naturally cool, we muft make
2. By cisternal Applications.
a Of cool Air.
Lettfom's Med. Memoirs, paffim, where the advantages of cool and pure air are ftrongly inculcated.
Cullen's Firft Lines of the Practice of Phyfic. Sed. CCII.

* Pctum dabimas frigidum, parrum, atque paulatim, no liquoris mu:titudine corpus irrigatum laxetur, fed magis tactu frigidx qualitatis denfetur.
+ Levi vefte debet effe conteftus, pofitufque in loco non ca. lido, fenefris patentibus, fic ut perflatus aliquis accedas.


it So artificially by taking away the window frames, unlefs the fun's entrance or the inclemency of the air forbids. * Cal Aurel.


## b. Of cold Water.

Sweats are fometimes checked by the application of a fpunge foaked in cold water, to the face. $\uparrow$ Aretaus.
It is proper to ufe foft fponges fqueezed out of cold water, which being applied to the face and neck of the fick perfon, and repeated at intervals, caufe him to recover his ftrength. We alfo do the fame by the whole of the breaft and face, pref-
b. Of cold Water.

See Cullen's Firft Lines of the Practice of Phyfic. Sect. CCIII, CCIV.
Lettom's Medical Memoirs, p. 18. note.

* Denique fir non fuerit naturahiter frigidus locus hoc affectabimus, fecularia detrahentes, nifi fol obftitcrit aut acris inequalitas. See more on this fubject in Coelius Aurelianus, in the fame chapter, fection 192, 193, \&c.
 Binu:
(Dr. Cullen fpeaks of it as a difcovery of modern times, that the body might in putrid fevers be wafhed all over with cold water; but Cælius Aurelianus, though he does not approve of it, mentions it as a practice of his time; fo that at any rate it is no modern difcovery.) "Alii vero in aquam frigidam ægros depofuerunt.". -Cal. Aur. lib. ii. c. xxxviii.
fing on them the water from the foonges, which is mixed with a portion of vinegar, and often changed, that it may not grow warm from continuing in contact with the part, and fo lofe its tonic powers. *icl. Aurel.
c. Of Medicinal Su'fances.
a. Of Aftringents.

Leaves of myrtle and wormwood, of the juice of the acacia, of that of unripe grapes, of alum, and juice of rofes, applied to the breaft. Aretreus.
Dried rofes, powdered alum, pomegranates, and acacia powdered and fprinkled on the body. Cal. Aurc!.
Powder of myrte leaves, of of thofe of the blackberry, of the lees of wine, in-

* Utendum ctiam fongiis tencris ex aquaí frigidà expreflis, quibus ora atque colla xgretantis circumentaces virium refumptionem faciamus, temporum intervallis innovantes. Tune totum etian pectus atque ons paries, cocicm modo percuramus, frigidam infundentes fpo:g:is, admifecnies etiam aceti quiddam, ac jugiter mutantes, ne perfeverationc taclùs ex väpore tepefcant, et amiffo frigore non valcant facere denfitatem.
§piffated and dried rubbed upon the body. Celfus.
bb. Of Subfances abforbent of Moifure.
Samian earth, flacked lime, calcined gypfum, and flour, fprinkled on the parts liable to perfpiration. Aretaus.
Chalk, Samian earth, clay, gypfum, powdered and fprinkled on the body. Cal. Aur.
Gypfum, clay, and chalk rubbed upon the body. Celfus.


## Indication II,

To excite the Powers of Life, and to refore the Strength.
See the firft quotation from Aretæus, under the former Indication.

1. By internal Remedies.
a. Strengthening Diet, both of Liquids and Solids.

We mult fupport the patient with fuch Diet as is moft fitted to warm and nourifh the body, as wine cooled with fnow, and fuch food as is rather of

1. By internal Remedies.
a. Strengthening Diet, both of Liquids and Solids. Huxham, p. 83.
The ftrength is to be fupported by wine, chickenbroths, and a nourifhing diet. Home. Sauvage. Typhus nervofus.
Lettfom's Med. Memoirs a ftrong
a ftrong kind, and fuch as may frengthen the ftomach. Medicus Galeni, p. 56.
The third thing to be done
for the cure of the Morbus Cardiacus, is to fupport the Atrength of the fick, by wine, and nourifhing food. 'I his, however, is to be given in fmall quantities, but 'sequently, and by night as well as by day, that it may nourifh the body, and not overload the ftomach. We thould not, except it be abfolutely neceflary, be too forward to employ wine as a remedy. If, indeed, there is reafon to apprehend that the ftrength may fail, then we fhould give it with food mixed with four, efpecially if the fick perfon takes but little food. The wine fhould be of the rough kind, but neverthelefs thin, though but little diluted, and cool, and taken freely. The wine fhould be in its quality neither very weak nor very ftrong, and it hould be taken by
on the Uie of Wine, particularly claret, which he advifes from one pint to three quarts daily, 8 . 21.
the patient to the quantity of two or three heminre in the fpace of a day and a night; if the patient be a bulky perfon, more may be taken, efpecially if he takes but little folid food. * Celfus.
Let the food that he takes through the day be light, eary of digeftion, and compofed for the moft part of bread-corn. Let it be made agreeable to the palate, even though it fhould be lefs proper in point of quality, fince, in this complaint, it is par-

* Tertium auxilium eft, imbecillitati jacentis cibo vinoque fuccurrere. Cibus non multus quidem, fed fæpe tamen, nocte ac die dandus eft; ut nutriat, neque oneret. Is efle debet e infirmiffimâ materiâ, et fomacho aptus. Nifí autem neceffe eft, ad vinum feftinare non oportet. Si verendum eft ne deficiat, tum et intrita ex hoc, et hoc ipfum aufterum quidem, fed tamen tenue, meraculum, egelidum, fubinde et liberaliter dandum eft; adjectâ polentâ, fi modo is æger parum cibi affumit. Idque vinum effe debet, neque nullarum virium, neque ingentium : recteque tota die ac notte, duas vel tres hed minas æger bibet; fi valtius corpus eft, plus etiam: fi cibum non accipit.
N. B. A Hemina is about half an Englifh pint according to Dr. Arbuthnot, but according to others, twelve ounces, or three quarters of a pint. See Greaves' Works, publified by Dr. Birch, vol. i. p. 301 . It was equal to the Cotyla. See Rbe* mnius Fannius, Lib. 67. Six Cyathi were equal to a Cotyla. See Rbemn. Fann L. 73.

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\mathrm{C}_{2}
$$

ticularly
ticularly neceffary to confult the appetite, as the diforder itfelf is fo nearly connected with weaknefs. of the itomach. Hunger, or want of nourifhment, are by all means to be avoided, as this difeafe is fuited to the taking nourifhment of all kinds. * Aretrus.

Let the food be of different forts, moftly of wheat-flour, and fuch as may be fupped up, rather than fuch as requires chewing; or, if folid food be given, let it at leaft be of the foft or nippery kind, as yolks of eggs half roafted, two or thrce flices of bread dipped in wine, which fhould be given at firft warno, but in the progress of the difeafe every thing fhould be given cold, unlefs there be fome internal inflam-





A fimilar cention relative to the giving fuch food as is more agreeable, though leis proper, is given in the fecond fection, and thirty-eighth aphorifm of Hippocrates.
mation. Let the wine be of a pleafant flavour, not very aftringent, and by no means rich or heavy. Of the Greek wines, he may ufe the Chian, or the Lefbian, and fuch other of the wines from the Iflands of the Archipelago, as are of a thin confiftence, Of the Italian wines, he may ufe the Surrentine, the Fundanian, or the Signine; if this laft fhould not be too aftringent. Such wine, however, is to be avoided, as is either too new, or too old. Let it, however, be adminiftered at firft warm, and not lefs than four cyathi, nor more than a cotyla, before the crifis, even though he fhould be defirous of it. Afterwards, when he tias taken food, and the inflammatory difpofition has abated, you may give him as much cold wine as is fufficient to quench his thirft, but not alone, but joined with food; taking care, how-
ever, that it may not be enough to diforder his underftanding. *Aretcus.
Cœelius Aurelianus directs various kinds of food to be given, and the thin wines, if any fever remains, as the Sabine, the Surrentine, and the Tyburitine; but if great weaknefs without fever prevails, to try the Se tine and the Falernian, which were ffronger bodied wines. Coel. Aur. lib. ii. cxxxvii.
It is certain, that in the Morbus Cardiacus all our hopes are centered in wine. Some think that this fhould not be given but at the accefs of the













diforder, others not until its force abates. The former of thefe opinions refers to the reftraining the fweats, the latter is founded on the idea of its being fafer when the difeafe abates in its violence, which I find is the general opinion. Plin. Nat. Hif. lib. xxiii. c. I.
b. By Medicines internally taken.
See the quotation from Galen, $\S b$, of the firft indication.
b. By Medicines internally taken.

Theriaca Andromachi in fmall quantities, compound powder of contrayerva. -Saffron, Raleigh's confect. with a faline draught every 5 th, 6 th, or 8 th hour.
Sp. vol. aromat. or foetid: given now and then in cyder whey, or muftard whey.
Tincture of Peruv. bark in fmall quantities, with faffron and fnake-root.
Preparations of the Peruv. bark.
Emetics at the beginning of the diforder. Huxham.
Peruvian bark in frong infufion, as, of three ounces
$\mathrm{C}_{4}$ of
of the bark in powder to a quart of water, which is boiled down to ten ounces; which quantity is directed to be taken in twenty-four hours. LettSom's Med. Memoirs, p. 15 Opium largely adminiftered Wall, pallim.
2. By ufing Evacuations /par. ingly.
a. Bleeding.

The taking away much blood at a time weakens the powers of nature, and much lefs is to be taken on this, than other occafions; for, if you exceed ever fo littie during the time, the patient is fubject to fainting, it eafily puts an end tolife. * Aretaus.
Reafon bears witnefs, that bleeding the patient, differs in no refpect from cutting his throat. + Coel. Aurel.
2. By ufing Evacutions Sparingly.
a. Bleeding.

I think it is very evident, that no great evacuations are proper (efpecially bleeding), particularly in perfons of originally weak and lax conflitutions who are by far the moft fubject to it. Huxbam. Bleeding is always injurious, unlefs in an inflammatory ftate of the blood. Home.
Above all things be fure to refrain the ufe of the lancet, as you value the life of the patient, and




+ Phlebotomiam nihil jugulatione differre, ratio teftatur.
your own reputation. Modern Theory of the Practice of $H^{\prime} b y j e$ je, by Brown Langriße, p. $343^{\circ}$ See Wall, p.11.
b. Purging.

Clyfters are only neceffary to difcharge the long retained hardened excrements, as we muft be cautious not to diminifh the firength of the body. **Aretcus.
It is a mofl deftructive practice in the Morbus Lardiacus, to excite a difcharge by the bowels, as long as the naulea, and dinike of food continues. + Coel. Aur.
c. Sweating.
$S_{\text {ee }}$ what has been faid above under the firft indication.
3. By external applications of the fimulating kind.
The whoie body is to be gently rubbed with bruifed bulbi, which, when
b. Purging.

I have known a common purge, injudicioufly given, at the beginning of this fever, immediately followed by furprifing languors, fyncope, and a large train of other ill fymptoms.
Clytters of milk, fugar, and falt, may be injected with fafety and advantage, every fecond or third day, if nature wants to be prompted to ftool. Huxham.
See Wall, p. 60.
c. Sweating.

See what has been faid above under the firft indication.
3. By external applications of the fimulating kind.
Blifers fhould be applied to the neck, occiput, or behind the ears. Hu:bain.

[^2] de $\varphi$ sideo.

+ Ef cnim perriciofiffmum in cardiacis faftidio atteflante ventris fluorem commovere.
they have grown dry upon the fkin, caule the ftomach to retain the wine fwallowed, and by that means produce a return of warmth to the body, and ftrength and power to the blood-veffels. ${ }^{*}$ Celfus.
Frefh bulbi, thofe particularly which are fmall and red, with pepper and the foft dregs of vinegar, makes the beft cataplafm for the feet ; this is, howcver, to be removed conftantly at the expiration of an hour, left it hould ulcerate the parts. $\dagger$ Are-


## taus.

Cataplarms of a fimilar kind are mentioned by Coc lius Aurelianus, as having been applied in this difeafe $\ddagger$.

Epirpaftics are advired by Dr. Home. Princ. Medic. But, I believe, they are lefs ufed in modern practice than formerly.
4. By encouraging hopes of recovery, and by entertain. ing the mind of the patient.
4. By encouraging bopes of recovery, and by entertaining the mind of the patient.

It is neceflary that the fick perfon himfelf keep up his fpirits and courage, and that the phyfician fhould entertain him with fuch words and difcourfe as may encourage him to hopes of recovery. *Areteus.
Let the fick perfon be fo placed as to overlook meadows, fountains, and foftly flowing ftreams, whofe grateful exhalations and beautiful appearance cherifh the foul, revive the powers of nature, and produce an appetite for both liquid and folid food. If, however, the circumftances of the patient will not afiord there conveniences, it will be proper to imitate the cool breezes, by elegant fans, made

The bulbi mentioned above, were probably fome root of a plant of the garlick kind, which is even now applied by fome practitioners to the feet as a milder ftimulant than muftard.


of branches of odorous trees; and in the fpring time, the ground fhould be ftrewed with fuch flowers and leaves as that feafon iproduces. * Aretrus.
Let the fight of the patient be gratified with the view of plants, paintings, and waters, fo difpofed that every object he cafts his eye upon fhould be of the pleafureable kind. Let the difcourfe of the attendants be cheerful, but let him be filent, though in good fpirits. Let him have fuch things to fmell to as are of a pleafant odour, and which do not overpower or ftupify the fenfes. The fmell of fome nourifhing things is proper, as of meal moiftened with water or vinegar, or of hot




 = $7 \% ~ \gamma r \nu$.
bread frefh baked. *Are-
trus.
Mode of the diforder's termi- Mode of the dijorder's terminating, if favourably. nating, if favourably.
If the diforder takes a favourable turn, the pulfe rifes, the body recovers its natural warmth, the difficulty of breathing is leffened, the mind becomes confident of recovery, and an accefs of frength is perceived on the taking of food. The neep alfo becomes more found, and refembles that which comes after fatigue. + Ccel. Aurelian.
But if the phyfician fhall act in a rational manner, and all things go on profperoufly, if the faintnefs has ceafed, and any inflammations that may

We have very feldom any thing completely critical in this fever; in many cafer, only time itfelf feems to wear it off. $H u x$ ham.
This diforder terminates gradually in recovery, by the affiftance of a difcharge of faliva, gentle perfiration, difcharge b frool, and turbid urine, but for the moft part withoutany evident crifis. Home.
The natural progrefs of the diforder, whether it ended in recovery or in death, was flow and lin-





+ At î in falutaria figna venire cererint $æ$ grotantes, pulfus refurgit, corporis frigus frangitur, et difficultas refpirationis minuitur, accedente animi quadam fecuritate, et poit fumptionem cibi, virium profectu: fommus quoque altior, tanquam poft laborem dormientium. Cal. Aurel.
have taken place are difcuffed; if the fweats are ceared, if a warmth of temperature be reproduced over the body, even in the extreme parts of the body, feet, and in the nofe, if the face recovers it colours, the pulfe rifes in ftrength, and is no longer tremuJous, but fteady, if the voice comes back to its ufual tone, and the patient is altogether lively and alert, and no longer feels tired and weak, and gets fome natural neep, and during that time digefts his food; if he recovers his fenfes during neep, and nature feems to be refrefhed by it, and when he awakes, breathes eafily, and is more ftrong and aftive, and leems to recoilect what happened during his difeafe as it were a dream, thefe are figns of recovery. *Are. t.rus.
gering. Either the comatofe fymptoms gained ground, and without any very manifeft alteration that could be marked with precifion, the patient funk into diffolution: or, on the other hand, without any diftinguifhed crifis, he became gradually more calm, collected, fenfible, more free from feverifh heat; and by an imperceptible progreffion acquired more appetite and ftrength, till health was perfectly reftored. Wall.

The

[^3]The above comparative defcriptions prove, that the nervous fever was a difeafe well known to the phyficians of antiquity, and the two methods of cure here exhibited, are fo fimilar, both in the general intentions, and in the means of fulfilling them, that on a tranfitory view we might be led to think that the one in ufe at prefent was borrowed from that practifed by Aretæus and Coelius Aurelianus. IBut it appears to me, that this refemblance in the practice of the two ages was, in a great meafure at leaft, cafual. Huxham, though not the firft revivor of the cordial regimen, made confiderable improvements upon the practice of his time in the cure of the difeafe; but he was often indecifive and timid in his operations, although his general intentions were proper and judicious. He was fenfible of the neceffity that

[^4]there was of fupporting nature; yet he employed means in no degree adequate. A little wine mised with fago, gruel, or panado, or a little generous red wine fomezobat diluted with water, is all he allows; and the cordial qualities of opium feem to have been altogether unknown to him, or at leaft overlooked. He indeed directs a little Theriaca Andromachi, or Elix. Paregoricum, with fomewhat of the fame intent with which they are at prefent given, viz. " to calm the hurry and tumult of the blood and firits, and to produce foft refrefhing flumbers;" but he difapproves of giving any quantity of an opiate that could be really efficacious if the fymptoms were urgent. It is extraordinary, that this eminent phyfician, who was profcfledly fo great an admirer of the ancient writers on medicine, and who well knew that this difcafe was the fame which was called by them the Morbus Cardiacus, and who feems to approve of the method of cure recommended by Celfus, which confifts in giving wine in large quantities, fhould not have imitated their pradice in a more effectual manner. But it appears plainly, that he was biaffed
biaffed by former prejudices, which he was afraid to fhake off. He knew that profufe fweating was prejudicial, yet feems to wifh to encourage perfiration farther than is now found to be of fervice. His candour and acutenefs in obfervation pointed out the general indications, although his former prejudices would not fuffer him to carry his intentions properly into execution.
M. de Sauvages appears to have improved upon Huxham's plan, though he evidently copies his practice in a great meafure. He recommends the ufe of wine and cordials, and difcourages the fweating regimen altogether; but difapproves of opiates, probably from the idea, however erroneous, of their counteracting his general indications of fupporting the ftrength and fpirits. The free ufe of the laft mentioned remedy is, perhaps, the greateft improvement in modern times in the treatment of this diforder. It is now found to act as a powerful cordial in fuch cafes, and to fecond the effects of wine in an admirable manner, contributing both to raife the fpirits, and to excite the vital powers, and to reftrain
Vol. VI. D the
the immoderate evacuations both by ftool and perfiration.

So far modern practice, as appears by the above comparifon, feems to agree nearly with the ancient. It muft be owned, that the enlargement of our Materia Medica has afforded us feveral advantages. The Peruvian bark is, without doubt, a medicine fuited to the intention, but does not feem to poffefs any particular or fpecific powers, like thofe which it manifefts in the intermittent fever; and fince the fcruples concerning the free ufe of wine and opium have been got over, appears to be lefs neceffary than it was thought fome years ago, when it was depended upon nearly altogether. - Our wines alfo may, perbaps, be fuperior to thofe ufed formerly, and cantharides afford us an opportunity of employing a ftimulus, more certain and effectual than the methods recommended by Celfus, Aretæus, and Cælius Aurelianus; though, perhaps, their applications might fufficiently anfwer the intention of rubefacients, which was all that was defired *.

* See the quotation from Aretæus, under the third head of the fecond indication of cure.

The various forms likewife in which opium may be taken are, undoubtedly, at leaft, convenient, and allow us greater latitude in fuiting them to the palate, inclination, or prejudice of different perfons.-Still, however, I muft think that the method of cure laid down by the old writers, is more full and explicit; and, upon the whole, preferable to any that I have feen even in the lateft publications.

Many material circumftances are fuggefted by Cælius Aurelianus and Aretæus, concerning which modern writers are either filent, or do not fufficiently inculcate their neceffity, nor defcribe the moft convenient method of ufing them.

Scarcely any attention is of greater importance in fuch fituations, than to preferve the coolne/s and purity of the air; but fcarcely any modern writers, that I have feen, Sydenham and Dr. Lettfom excepted, are fufficiently aware of the importance of thefe confiderations; which is the more extraordinary, as fo many interefting difcoveries have been made, of late years, on the nature and ufes of that fluid in the animal œconomy. The writers
of antiquity, however, are fufficiently full and explicit on thofe heads *.

It is true, that coolnefs of temperature is more neceffary to be attended to in the warmer climates than in Great Britain, but the purity of the air is of equal importance in every fituation ; and this caution is to be particularly regarded in climates where the cold forbids a conftant communication with the open air. The coldnefs of the liquors taken by the patient, is another article coinciding with the fame intention, which is too little regarded by modern writers. Huxham, though he did not overlook this circumftance, was rather timid, and much too cautious of what he feems to have deemed innovation; though it was in reality returning to the ancient practice. Though fenfible of the necef-

[^5]fity of reftraining profufe difcharges, by perfpiration, he was averfe to the application * of cold in any way for that purpofe. Few modern writers befides have noticed them, Dr. Lettfom excepted. The ancient writers, however, have paid ample attention to this article $\uparrow$.

Food is another important confideration, too much neglected by modern authors. Huxham, indeed, has given fome directions on this head, which are fufficiently proper, and nearly agreeable to thole recommended by the old writers, but fcarcely fufficiently infifted upon. Sauvages has alfo mentioned fome articles of diet, but feems to treat them rather as matters of courfe, than circumftances of importance. The foregoing comparative view will fhew how attentive the ancient phyficians were in this refpect.

The fupport of the patient's fpirits, by giving hopes and expectations of recovery, is of

* Cold air, cold linen, cold liquors, or a cold regimen are greatly improper. Huxbam.
+ See Indication i. 2.b. See alfo the quotation from Galen, Indication ii. I, a.
the utmoft * confequence in this difeafe, yet is very little attended to by modern practitioners. Dr. Cullen has given fome ufeful hints, and, indeed, as much as was confiftent with an elementary work, but I have not feen any thing of the kind in any modern practical writer. This, however, has not efcaped the notice of Aretæus $\dagger$, who recommends it very particularly. The fame writer has alfo given feveral very proper directions concerning the amufement and entertainment of the patient's mind, by drawing off the attention from pain and mifery to pleafing objects, which circumftance is no lefs a proof of found judgment, than of humane fenfibility.
* Dr. Lettfom has noticed a remarkable paffage in Sir Hans Sloane's Hiftory of Jamaica (vol. i. Introd. p. 3r.), wherein he mentions a confiderable difference in the facility of curing the fevers of thofe who had many occafions of folicitude and concern upon their minds; and of the Indians refident in the fame infand, who having fewer wants, poffeffed fewer cares, the difeafes of the latter yielding much fooner to the fame remedies. Lsttfom's Med. Mem. p. 5.
+ See Indication ii. 4.

Some things, of apparently inferior concern, but by no means unworthy of regard, are noticed by Cælius Aurelianus. "The bed of the patient," fays that judicious writer, " fhould be in a proper medium, between foftnels and hardnefs: the firft promoting perfpiration too much, and the latter, by being uneafy, preventing fleep. The fize of the bed is alfo confidered and recommended to be fuch, as may admit of a change of place to a cool part, without the trouble of removing from one bed to another *." The advantage of keeping the body in a quiet ftate, is very properly defcribed by the fame author, who very judicioufly connects the reft of the body $\dagger$ with the compofure of the mind. I cannot forbear on this occafion to recommend to every medical practitioner a careful perufal of what has been delivered by a moft learned

- Lecti etiam latitudo atque fpatium tantum probatur, quantum fufficiat $æ$ gro, alterna converfatione alterius loci frigus acsipere, ac defertum vapore carere, quo mutuâ vice femper veluti nova repetendo, frigida inveniat, ut fine ullâ lectorum mutatione, in eodem lecto mutatio Eeri videatur. Cal. Aurelian. L. ii. Cap. xxxvii.
+ Jubentes eas quiefcere, non folum corporis officio, fed fi fieri poterit, etiam curâ animorum. Ibid. Calo Aur.
and able member of this Society on this fubject *. The importance of thefe apparently minute, but, in reality, great articles, is there pointed out, and the fuperiority of the ancient to the modern phyficians, in this refpect fully evinced. I need only add, that Aretæus is the author to whom that gentleman alludes; and the directions which he, with fo much reafon approves, are to be found in what Aretæus fays on the cure of the Phrenitis.

[^6]ARTICLE II.

A Caje of Angina Pectoris, with a Diffection.

> By SAMUEL BLACK, M.D. of Newry, Ire- land.
[Communicated in a Letter to Dr. PERCIVAL, Manchester.]

Read, October 24, 1796.

Dear Sir,
The wifh which you fo obligingly intimated, that I would communicate to you any thing curious or interefting that might occur in the exercife of my profeffion, induces me to trouble you with fome account of a fecond cafe of the Angina Pectoris. The perfon in whom it occurred, was Mr. Jofeph Carfon, a very refpectable merchant of this town, a man whofe life was marked by the ftricteft regularity and temperance, and, indeed, by every thing that was exemplary in conduct, and virtuous in fentiment. Mr. Carfon

Carfon had never been liable to gout, nor to any other complaint, that which is the fubject of this paper excepted. The firft attack occurred above thirty years ago, when Mr. Carfon was aged thirty-two. Being on horfeback, riding very flowly, and being very inattentive to the management of his horfe, the animal made a fudden and dangerous ftumble, in confequence of which, Mr. Carfon inftantly felt, what he called, a fevere fting at the heart. The fenfation continued, with acute pain, for a minute; but no fimilar feeling was experienced for a year. However, at the end of that time, on attempting to walk faft up a hill, a fudden and extremely violent pain in the chef obliged him to ftand ftill for fear of inftant fuffocation. For feveral years the attacks were very unfrequent, nor did they excite that alarm which they ought to have done. In time, however, they became more frequent, and more fevere, and were attended with a peculiar fenfation, extending along the arms, which Mr. Carfon compared to the rufhing of a hot fluid. He now went to Dublin, in order to confult the late Dr. Smyth. The chief remedy recommended by
him was iffues. Two were accordingly eftablifhed, and for four or five years much advantage was experienced from them, the attacks becoming lefs frequent, and lefs fevere. Conceiving that the difeafe was now in a great meafure cured, Mr. Carfon, as imprudently as unfortunately, clofed up the iffues; in confequence of which, the complaint became much worfe. He was, indeed, fufficiently prompt again to have recourfe to the remedy which had before afforded fo much relief, and the iffues were re-eftablifhed, but not with the fame beneficial refult as formerly. For the laft twelve years of his life, the violence of the fymptoms continued regularly to increafe. But finding no relief from the advice of the moft judicious phyficians, and feeling a conviction of the fatal tendency of the diforder, he forbore the ufe of all remedies, except laudanum, very large quantities of which were rendered indifpenfable by the extreme feverity of the nocturnal paroxyfms. In the month of December laft, thefe became of unufual violence, frequency, and duration. In the beginning of February, while fitting in the evening drinking fome chocom late, he fell fuddenly off his chair, and inftantly
ftantly expired. You will readily believe, that I felt the mof anxious folicitude to have an opportunity of examining the body. That liberty being permitted, the examination was made next morning.

## DISSECTION.

The cellular membrane was univerfally loaded with fat. An incipient offification was difcoverable in the cartilages of fome of the ribs. On opening the thorax, the mediaftinum was covered with a layer of fat of urufual thicknefs and extent. There was an effufor into the pericardium, of a ferous fluid to the amount of nearly four ounces; but none into either cavity of the thorax. The heart, on being handled, appeared found, and not lacerable, as in the cale of Mr. Woodney *. The aorta appeared fome what dilated. The valves were found. On examining the coronary arteries, I found, with a mixture of fatisfaction and furprize, that they were completely offified through their whole extent. I cut them out, preferved them, and they are ftill in my poffeflion. The more remarkable of the two, inmediately after its origit,

* Vide Mem. Med. Soc. vol. iv.
divides
divides into two capital branches, the larger of thefe is a folid bone, the other, though apparently fomewhat pervious, yet extremely offeous through its whole extent: and even the fmall ramifications from thefe capital branches were completely indurated and inflexible. The abdominal vifcera were found.

This diffection fuggefts fome reflections which appear to me to be of confiderable importance: and, firft, the remarkable coincidence (in what I conceive to be the effential point) with that of Mr. Woodney, is a circumfance very deferving of obfervation. It appears to me probable, that the true pathology of this difeafe may be more fimple and uniform than has been commonly imagined, or than I have myfelf reprefented it in my paper on Mr. Woodmey's cafe. If you defire me to ftate my opinion on this head, it is briefly this:- That the primary and original caufe of the diforder is, perhaps, in every inftance, the offification of the coronaries; and that the effufion of fluid, and the accumulation of fat, which diffectors have obferved, are to be confidered as the natural, and, indeed, the neceffary effects of this offifi-
cation. When I fay neceffary, I would be underftood to mean, when the difeafe has been of long ftanding. How effufion ftiould be the confequence of difeafed of obftructed veffels, is furely too obvious to require any illuftration. The accumulation of fat is, I think, pretty clearly deducible from the fame caufe; the difeafed ftate of the heart produces an impeded and weakened action of that organ; the blood is not propelled into the diftant veffels with the force that is natural and neceffary, the exhalation (in parts remote from the heart), and all the thinner excretions, are diminifhed, a plethoric fate of the fanguiferous fyftem is induced, and oil is depofited in unufual quantity, in the cellular membrane. This depofition of oil is much favoured by the patient's inability to ufe his accuftomed exercife. The effects of iffues, and of all remedies tending to keep up the thinner excretions, in palliating the fymptoms of this complaint, are beft explained by this view of the fubject.

It will, perhaps, be objected to this reafoning, that there are on record fome diffections, in which no organic degeneracy whatever was difcovered (Med. Tranf. vol. iii.),
and others, in which the effufion and the accumulation of fat were obferved (Med. Obferv. vol. v.), but not the offification of the coronaries. To this I anfwer,

Ift, That the diffections relating to this diforder are by no means numerous, being all, fo far as I know, contained in the two works already quoted. Of thefe few, there is one (the diffection of the body of H. R. Efq. by Mr. John Hunter) perfectly coinciding with the two which have fallen under my obfervation.

2 d , With refpect to thofe diffections in which the offification of the coronaries was not found, I obferve, that the coronaries are fmall veffels, and that they do not lie altogether fuperficial, but are, in fome degree, buried in the fubftance of the heart, for which reafon, I think it very poffible that their condition might pafs unobferved, even by a very accurate diffector, if he were not particularly apprized of the neceflity of attending minutely to that circumftance. For my own part, if I had not been on my guard with refpect to it, I think it would have paffed unnoticed by me in the two diffections of which I have now given you fome account.

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3 \mathrm{~d}, \mathrm{l}
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3 d , I obferve, that there are cafes innumerable, both on record, and daily paffing under our obfervation, as in the hydrothorax and empyema, in which an effufion of fluids does not excite the characterific fymptoms of this diforder; and with refpect to an accumulation of fat, though cafes of this kind are not fo numerous, yet every perfon acquainted with diffections will acknowledge, that many fuct are to be found in which no fuch fymptoms have been obferved.

4 th, I am unable to find on record any cafe $i_{n}$ which the offification of the coronaries was really found, and the fymptoms of Angina Pectoris were abfent. Let it not, however, be fuppofed that I mean to impeach the accuracy of other diffectors, or to prefs my own obfervations with an unbecoming confidence; my wifh is, that the point fhould be fully and clearly afcertained by future inveftigation. I expect, however, it will be found, that the ufual fimplicity and uniformity of nature prevail in this inftance; ; and fhall only take the liberty of adding, that the fame rules by which we are governed in claffing the great phænomena of nature may, I think, be applied, with much advastage, in all at-
tempts to eftablifh pathological principles, viz.
" Caufas rerum naturalium non plures " admitti debere, quam quæ et veræ fint, et " earum phænomenis exponendis fuffici" ant."
" Ideoque effectuum naturalium, ejufdem " generis, eædem affignandæ funt caufæ, " quatenus fieri poteft."
I am, \&c.
S. BLACK.

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\text { ARTICLE } H 1 .
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1 Cafe of Hjdrocephalus inlernus, terminating fuccefsfully.

By Mr. Edmtind Pitts Gapper, Surgeon, Ewell, Surrey.
[Communicated by Dr. FERRIS.]

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\text { Read, April 22, } 1799 .
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The number of cafes on record, of recovery from this dreadful difeafe, being unfortunately very few, will, I truft, be deemed a fufficient apology for my obtruding this cafe on the priblic ; for every well afcertained fact, though comparatively unimportant in itfelf, yet, if it tends, even in the remoteft degree, to elucidate an opinion, or detect an error, becomes of confequence to the caufe of fcience.

The fubject of this cafe, is a girl of twelve years of age, whom I was defired to vifit, fome time in the beginning of January laft.

She was feized in the fields, while employed in picking ftones, with univerfal pain, heavinefs in her head, and dimnefs of fight. This laft fymptom I was not informed of at the time, and could get no other account from her, than that " fhe was ill all over." At this time there was not the leaft heat on her fkin, or any fymptom of fever; the pulfe was fcarce perceptible, and fhe appeared ftupid and infenfible; fome gently opening medicines were ordered, and I faw her again in a few days, my affiftant having vifited her in the interval. I then found her complaining of ficknefs, and pain in her head, though not in a fufficient degree to excite in me an idea of there being any thing particularly extraordinary in the cafe. An emetic was adminiftered, a blifter applied to the nape of the neck, and the dofes of opening medicines increafed, as coftivenefs was much complained of. She went on in this manner near a week, when all the fymptoms began to increafe; the pain in her head became fo acute, as to produce at times, actions of violence, which rendered confinement neceffary, and the intervals were marked by ftupidity; fhe was totally unable to bear an erect pofture, and her dif-
trefs was very great and affecting. Thefe circumftances led to a more particular examination. I found the pupil of the eye dilated to its utmof extent, and abfolutely immoveable, the pulfe fmall and extremely quick, with a dry hot fkin, a confiderable degree of thirft, though the tongue was but flightly furred. A fupor, conftant watchfuinefs, a feufe of great weight in the head, ficknefs, obfinate coftivenets, and fmall evacuations of urine, were prominent fymptoms, and which led me to infer, that the difeafe in queftion could be no other than Hydrocephal sinternus. When I thought my felf convinced of this fact, which was in rather more than a fortnight from the firft attack, I was determined to make a trial of the effect of mercury, fo ftrongly recommended by Dr. Dobfon, although the late Dr. Warren of Taunton doubted its having any effect on this difeafe, and had thrown out hints, that the cafes in which it was fuppofed to have fucceeded, were not in reality Hydrocephalus internus, but arofe from worms, or fome other irritating caufe in the primæ vix. Now we know, from numberlefs facts, and, I can add, the teftimony of my own experience, that collections
lections of water in the head have ever been attended with fymptoms exactly correfponding with thofe in the prefent cafe; and reafoning from analogy, we may fafely infer, that the confequence of a certain fet of fymptoms in one cafe, will invariably be the fame under fimilar circumftances, in another. Therefore, I think, I am warranted in pronouncing this cafe to be Hydrocephalus internus.

Under this idea, I now ordered half a drach m of ftrong mercurial ointment to be rubbed into the thighs three times in a day, as I thought it expedient to get the mercury into the fyftem as foon as poffible; and as heat and coftivenefs were to be obviated, I gave her powders of nitre and jalap every fix hours, and recommended a diet of the moft light and fimple kind. In four or five days, her mouth began to be affected, and a confiderable flow of faliva foon fucceeded, attended with a dijclbarge of water from the nofe, a circumftance which has been noticed by former writers on this fubject. This courfe was fteadily perfifted in for full three weeks, with the addition of fifteen drops of tinct. E 3 opii,
opii, morning and night, and which was gradually increafed to forty drops at each dofe.

At the end of a fortnight, from the commencement of the falivation, an evident abatement of all the fymptoms had taken place ; fhe could now fit erect, and had tof the fenfe of weight in her head; the pupil of the cye had, in part, recovered its contractile power; the ftupor was in a great degree removed; the quicknefs of the pulfe much abated; fhe nlept, and had in a great meafure recovered her appetite. Under thefe encouraging circumftances, the mercurial friction was continued another week, when I had the fatiffaction of fecing all the fymptoms, except occafional fits of delirium, vanifi. Thefe paroxyfms had continued through the whole courfe of the difeafe, but were now much reduced, both in force and duration.

On duly weighing all the circumftances of the cafe, I concluded that I had obtained all the advantages I could expect from the ufe of mercury; as there were evident proofs, from the difappearance of the formidable fymptoms with which my patient had been afficted, that the original caufe was removed,
and that a further continuance might induce too great a degree of irritability; it was, therefore difcontinued. Fits of delirium fill remained, to remove which, a blifter was applied over the whole head, the dofes of tinct. opii continued, and a grain and an half of emetic tartar adminiftered every three or four days. After the third dofe, the paroxyfms ceafed, and have not fince returned; and fhe is now in as perfect health as before the attack. I muft not omit to obferve, that no worms were difcharged in any fage of the difeafe, neither was there any frabifmus.

It is a circumftance worth attending to in this cafe, that, together with the difcharge from the falivary glands, there was alfo a very confiderable one from the nofe, and that a gradual diminution of the fymptoms enfued as thofe difcharges increafed. I truft the fuccefsful termination of this cafe, by adding an important fact to the very few on record, will tend to excite the attention of the faculty to the fubject, and induce them to make further trials of mercury in this terrible difeafe; and probably, an early exhibition
of it, before the energy of the brain is too much diminifhed, may be attended with more beneficial effects than has hitherto been experienced; for, perhaps, its failure may in a great meafure be attributed, to its being too long delayed. I did not think it advifable, in this cafe, to give calomel, on account of the conftant ficknefs, particularly as the frequent dofes of jalap and nitre anfwered the purpofe of clearing the inteftines fufficiently.

## ARTICLE IV.

A Caje of a Boy who became of a blue Colour fome Montbs ajter Birth.
[Communicated in a Letter to Dr. JAMES SiMS.] By ED. THOMAS, M.D. \&c. St. Kitts.

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\text { Read, Octuber 7, } 1799 .
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SIR,
I take the liberty of tranfmitting to you a fingular cafe of a boy, who, during a fevere fit of ficknefs, probably communicated by his mother, became perfectly blue.

The boy at prefent enjoys, in appearance, a perfect fate of health, is lively, playful, and active like other children. There is, however, an inexpreffibly languid effeminacy in his look, or rather eyes, which are large and blue. His fkin refembles that of a delicate female labouring under fcrofula; the colour of which, his father informs me, is ftill influenced by the viciffitudes of the weather, and
and particularly after a glafs of wine. An inftance of this change I was once a witnefs to, which induced me to inquire into his cafe.

The following is the account I had from his father, Mr. Owen, a worthy and enlightened clergyman, of the fect of methodifts, refiding in the ifland of St. Chriftopher, which, if thought worthy a place in the Memoirs of the London Medical Society, will gratify,

Yours, \&c.

ED. THOMAS, M.D.<br>Member of the R. C. of Phyficians<br>of London and of Copenhagen.

The boy was born in the ifland of Tortola, January 16, 1794, and for fome months fubfequent to his birth, was as healthy and vigorous as children ufually are in the early periods of infancy; nor was there any ftriking deviation from a natural complexion obfervable during that time.

In the month of March, it became neceffary for his father to remove, with his family, to St. Vincent's; where, fhortly after his arrival,
arrival, his wife was taken ill of a bilious remittent fever, which terminated in an irregular intermittent, whofe obfinacy bade defiance to medicine.

At length the lacteal fountain becoming visiated, and incapable of fupplying the child with the pabulum of health and life, he was attacked with tender bowels and diarrhoe, attended with uneafy, reftlefs nights, and languor. Almof, at the fame time, appeared, and increafed progrefively, an uncommon blueness of the fkin, particularly perceptible in the temples, neck, wrifts, and fingers. It was remarked, that the hue was always deeper, whenever the fubject was moft under the influence of a cold and moift atmofphere. Dry and ferene weather generally procured him relief. An almof continual palpitation of the heart, was another concomitant fymptom. But what was more poignant than all to the feelings of a doating parent, was difficulty of refipiration, frequently heightened into violent fits of afthma.

It would be endlefs to detail the feveral marks of furprize exhibited by ftrangers at the firf moment of feeing him: however, one
one inftance may be related, as it will prove a caution to midical men, who hereafter meet with fuch cafes, and induce them to deliver their opinions with prudent deliberation.

Some little time after this change of colour, he was attacked with fever, on which account the garrifon furgenn, who had been in the habit of attending the family, was called in, and his friendly and affiduous altention, experienced for fome time; but the Charib war being then in its zenith, the duties of his ftation interfering with his private practice, he was obliged to give it up. Another gentleman of the faculty was fent for, who, on his. arrival, found the little fufferer lying in his mother's lap in a ftupor. He examined him only with his eye, then calle.l the father out, and, in as delicate a manner as poffible, gave him to underftand, that he mult prepare for the worft. He requefted him to look at his nails, temples, \&cc. and faid, that he was already comatofe, that he had never before been a witnefs of fo rapid and general a mortification. The father was immediately aware of his miftake, and endeavoured to remove it, by afcribing the caufe of alarm, not fo much
to the colour, as to the other fymptoms, but in vain; the learned and fagacious doctor's word was fate, the child mult die. The old adage, " while there is life there is hope," occurring to the father, he immediately applied finapifins to the child's feet, and a large blifter between its fhoulders. The means proved effectual; the fever intermitted, the heavinefs difappeared, and wonted health and ftrength were in a fhort time reftored to the patient.

The frequent alarms and danger all the inhabitants of the colony were expofed to, dictating the expediency of leaving it, he departed from that ifland, and removed to St. Kitt's, where he has fince refided. On his arrival, the appearance of the child was the fame, and created no lefs wonder and concern in all who faw him; but it has gradually difappeared, with all its difagreeable attendants. The child is now four years of age, and anfwers the defcription which I have previoully given you.

# ARTICLE V. <br> 1. Cafe of olfinate Hepatic Dijede. <br> By J. C. Lettsom, M.D. \&cc. 

Read, Noyember in, ${ }^{7} 997$.

William Warner, a refpectable furgeon and accoucheur, in the city', had always been temperate in his mode of living, and enjoyed a good fate of health.

In April 1797, he had been much engaged in his profeffion, and expofed to the weather, which brought on a ftate of indifpofition, and a mode of treatment, which form the following relation :

It was on the 22 d of this month I firlt vifited him; he had then been a few days only indifpofed, which he afcribed to fatiguc and cold. He then complained of confidera ble oppreffion and uneafinefs about the region
of the flomach, extending with increafed pain to each hypochondrium, and fome tenfion of the abdomen.

He was directed to take fmall dofes of antimonials, which proved emetic, and afterwards neutral falts in the lac amygdalæ. The abdomen was fomented with the decoctum profomento.

Thefe not producing a fufficient laxative effect, the oleum ricini was fuccefffully exhibited.

On the 23 d , the fymptoms appeared lefs ambiguous, the fkin appeared tinged of a yellow colour; the urine allo of the fame colour, with increafed pain about the region of the liver, and an hepatitis was obvious, which induced me to order venæfection, and calomel purgatives, with cooling medicines, and nutrition adapted to the difeafe. With the fever, connected with the difeafe, he occafionally fuffered from a cough, and formetimes dyfuria; but mort of the original fymptoms had fubfided towards the end of May; the fools, however, continued to be of a pale clay appearance, the urine of a deep dark yellow colour, with dyfpepfia, and ful-
nefs of the abdomen, not without confiderable pain, as low as the pubis.

During the month of May, although he could enjoy a little exercife, he experienced confiderable laffitude; and the ftools continued pale, and the urine high coloured: he took chiefly at this time foap, rhubarb, and aloes, in pills, and occafionally bitter infufions; and although he was fometimes finartly purged, the colcur of the ftools did not much improve.

In July, the appearances had not much varied; the dyfuria, indeed, had increafed, on which account, he took uva urfi, with medicines to produce effervefcence, for the fake of conveying fixed air into the fomach. He feemed to find fome relief from a decoction of ginfeng; the dyfuria at leaft was better, and the uneafinefs and flatulence of the abdomen were mitigated. Occafionally opiates were given, but in no form did they appear to agree with the patient.

In Auguf, there was an increafed fulnefs of the abdomen, with tenfion and forenefs almof univerfally; the urine nearly purple, and in fmall quantities, with pale frces. I
had begun to give him fmall dofes of calomel, when he confulted, at my requeft, Dr. James Sims, who joined the digitalis purpurea with the calomel. In September, his mouth became tender from the calomel, and it was omitted, and a decoction of rubia tinctorum, and fometimes bitter infufions and chalybeate wine were fubftituted.

Early in November, he took the extraf: and decoction of taraxacum with rhubarb, foap, and ox-gall.

In the month of December, Dr. Saunders, whom he confulted, advifed the application to the fide of unguentum hydrarg. fortis, which again induced a difpofition to ptyalifm, when it was left off. With all thefe medicinal aids, the patient found no effential benefit; the jaundiced appearance fometimes diminifhed, but the ftools were never of a natural colour for the fpace of two days; the urine was high coloured, and he dragged on a miferable life, frequently incapable of moving from home; the abdomen, indeed, was rather lefs tenfe, but it felt, to the touch, like a drum, fimilar to peritonæal, or intefinal inflammation.

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\text { VoL. VI. } \mathrm{F} \quad \mathrm{I}_{\mathrm{H}}
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In January 1798 , he began to try the nitric acid, of which he took in gruel, or other fluids, a drachm twice a-day; and this he continued pretty regularly during February, March, and April.

I ought to have obferved, that, from a ftate of original plumpnefs, he had gradually fhrunk in the fhoulders, cheft, and lower extrenities, but not in the abdomen, which continued full, tenle, and fomewhat enlarged.

During this long ufe of the nitric and nitrous acid's, he appeared to gain ground; he was able to go abroad more frequently; the yellownefs of the flin was rather diminifhed, and he imagined that the fæces were of a more healthy colour ; but it muft be confeffed, that he continued emaciated at the extremities, and the abdomen too full; he mentioned, however, that he found no inconvenience from the mineral acid, and, upon the whole, fuffered lefs pain in the abdomen.

Towards the end of April, the patient experienced fo little falutary change upon the whole, that he began to neglect the medicine;
and, in May, I think it was totally relinquifhed, and never after refumed.

In this weak, ftationary, unhappy manner, he led a languid exiftence, juft capable of creeping abroad to vifit his patients in the vicinity, till near the middle of June, when a high degree of fever enfued: he was immediately confined to his bed, with pains almoft univerfally, and more violently in the abdomen, with tenfion of the part, deep yellownefs of the fkin, and dark coloured vomiting. In this ftate I found him, with debility, dyfpnca, and a moft rapid pulfe; and apparently irrecoverable, after the tedious and painful affections that had preceded. About the fourth day of the fever, a diarrhœea was procured, and, for the firft time during the fpace of fourteen months, the fæces were yellow, and loaded with bile, whilft the urine and complexion were lighter. Thefe appearances, with the ceffation of ficknefs, afforded a gleam of hope: little more now was done than to keep up the fecretions; and, happily, by the middle of July, the patient was in a moft favourable ftate of convalefcence, and has continued to improve ever fince: he has
F2 regained
regained his former flate of flefh and complexion, and performs all his profeffional duties.

In reflecting upon the whole train of fymptoms and remedies, it is difficult to afcertain by what means the recovery was effected.

Certainly no medicine feemed to have any falutary effect, after the firf inflammatory fymptoms had been fubdued, except the nitric acid ; and this apparent effect was fo trivial, as to induce the patient, wearied out with taking it, to leave it entirely; at this time he thought he found rather inconvenience than benefit. It muft be premifed alfo, that he began this acid, after ufing freely mercury internally and externally, a medicine defervedly recommended in hepatic obftructions.

In what degree, and under what circumftances, either of thefe powerful medicincs might have influenced the conftitution of the patient, and brought on the favourable change, I am ignorant. The morcury he had abandoned nearly fix months, and the nitric acid fix weeks before the fever at-
MEDICAL SOCIETY OF LONDON.
tacked him, and produced a conflict which, under a fatal afpect, terminated in his recovery. This, however, is certain, that no termination, and but a flight mitigation of the primary fymptoms appeared, till the febrile onfet took place, and which followed long after any active medicine had been exhibited.

London, March I4, 1798.
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ARTICLE VI.

Cafe of a remarkable and fucceffful Termination of Scrotal Mernia.

By James Lee, M.D. Spanish-Town, Jamaca.

[Communicated by Dr. BRODBt[T.]

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\text { Read, February } 24, \text { isoc. }
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James, a negro, xt. 45, healthy and robuft, was fuddenly attacked with frangulated hernia. After much lofs of time, I was called in to his affiftance, and the ufual means to replace the gut proving unfuccefsful, I immediately had recourfe to the operation, which admitted of no farther delay, as the fymptoms were putting on a truly alarming appearance. The operation being begun in the ufual manner, after caretul diffection, I bronght the peritonrum into view, which exhibited fuch an unhealthy appearance, as to give me little hopes of fuccefs. I then opened the
the fac, and divided it, though with difficulty, which brought to my more immediate view the real fate of the gut, which was fo affected with gangrene, that I thought it prudent to give the patient a chance of his life, by making an artificial anus in the groin.

The fymptoms after the operation were mild, confidering the nature of the cafe; and great attention being paid, by the adminiftration of bark, and other antifeptics, with proper regimen, the man in a few weeks recovered, with no other inconvenience than what is experienced by paffing the fæces at the groin.

About a year after the operation, I was fuddenly called to vifit him: I found him in violent pain, particularly in the abdomen, mooting to the affected groin, and which was much fwollen. He informed me, that no freces had paffed by the wound as ufual for fome days.

On examining the groin, I found that fuch an adhefion had taken place, as fcarcely to admit the introduction of the probe, and I did not think it prudent to make ufe of force.

The abdomen was fomented, emollient dlyfters were thrown up the rectum, and another attempt was made to caufe the fæces to be expelled by the groin.

On the following day, the tenfion of the abdomen, and the pain and debility being increafed, with fingultus, vomiting, and other alarming fymptoms, opiates were liberally adminiftered ; and towards evening, when a fatak termination of the difeafe was apprehended, the patient had a call to ftool, and, to the furprife of every one, the fæces were expelled by the anus.

From this period all the unfavourable fymptoms fubfided, and in the courfe of a very fhort time the patient recovered his former health.

The wound in the groin has cicatrized, and although there is much fulnefs there, yet the frees have been expelled by the anus ever fince.

The man is a mafon, and undergoes confequently much bodily labour, but he fuffers little inconvenience, and it is more than three years fince this happy accident took place,

## R E M A R K S.

There are few cafes of Hernix more remarkable than the foregoing, and which is rendered ftill more fo by the favourable termination; and, I think it not improbable, that it was brought about by inflammation being by fome accidental caufe occafioned in the parts about the affected groin, which had produced an adhefion of the fides of the inteftines, and fubfequent erofion, which latter effect was affifted by the weight of the defcending fæces.

May, 1797.
A R T I C L E VII.

A Cafe of Croup, fuccefsfilly trated by Emetics.

By JOHn Smith, Surgeon, C.M.S. and Member of the Medical Society of Philadelphia.

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\text { Read, March 3, } 1800 .
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$$
\text { June } 7, \text { I795. }
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I visited Janet Bird, aged three years, of a florid countenance, in the third day of Croup. A dofe of ipecacuanha had been given the firft day of the complaint, which operating mildly, gave no relief.

The parents, fenfible of the dangerous fituation of the child, readily agreed to have any method adopted that would afford a hope of recovery.

Half a grain of tartar emetic was firft given, and repeated every fifteen minutes for feveral times, without any effect. The following was then ufed:

R Tartar. Emetic. gr. viij. Vitriol. Alb. gr. xv. Aq. Funt. $\begin{aligned} & \text { iß. m. }\end{aligned}$
Of this folution, two tea-fpoonsful were given every fifteen minutes, till it operated violently, not difcontinuing its ufe till round lumps of mucus were difcharged. One of thefe lumps was above an inch in length, though not fo broad to appearance as fome that were at firft thrown up. In colour they refembled the white of an egg boiled, and were of a thick confiftence. The child's breathing was perfectly relieved by the operation of the liquid, which was all ufed. The cavity in the fcrobiculus cordis, in which a fmall hand could have been put at each infpiration, the convulfive motion under the chin, and fhrillnefs in breathing were no more obferved. The little patient laid, for fome time, as if worn out by the operation of the emetic. At night calomel ad gr. viij. was given, a blifter applied between the fhoulders, and a powder of jalap directed in the morning. She was foon well, and has had feveral flight attacks fince, that have been removed by taking tartar emetic till the thick mucus is difcharged.

Of fix patients that year ( ${ }^{7} 795$ ), I luft one. In the cafe that terminated fatally, no method
method I could contrive, would excite vomiting. Reflecting fince on the fubject, I am inclined to think, that vomiting, even in that inftance, might have been effected by pouring a quantity of warm water into the ftomach by means of a funnel.

I am prompted to forward the foregoing to the Medical Socicty of London, from the difference of practice recommended in their $4^{\text {th }}$ volume of the Memoirs of the Society, and that adopted in the above cafe ; confident that effectual relief can be but rarely afforded, by means that will not occafion a removal of the mucous membrane that lines the trachea.

## A R TICLE VIII.

A Cafe of Opifthotonos, fuccelsfully treated.

> By the Same.

Read, March 3, 18 co.
December $19,1796$.
I visited a female negro, aged twelve years: her head was drawn to one fide; there was a great rigidity about the throat; fhe could fcarcely fwallow a tea-fpoonful of a thick liquid at a time. The abdomen hard, and pufhed forwards: the fpine, particularly the lumbar region, bent back like a bow, to a degree that can fcarcely be conceived by thofe who have not feen patients in fimilar circumftances: the rigidity of the arms was confiderable; that of the lower extremities fo great, as to render it impoffible to bend them in the leaft degree.

After remiffions of a few minutes, the mufcies were fo ftrongly convulfed, that fhe ferung
fiprung up in the bed, and was often throwt entirely out on the floor. The fpafms were preceded by a pain at the lower part of the vaftus externus mufcle of the right fide; great complaint was alfo made of pain darting under the enfiform cartilage. Skin cool and dry, pulfe regular, rather active.

The patient complained about the third of a pain in the back of the neck. The above fymptoms came on about fix days before, and were then more violent than at any former period of her illnefs.

The whites infifted, that no injury had been received by the negro previous to her indifpofition; on repeating my inquiries among the blacks, one of them obferved, that her right leg had been burned three or four weeks before; that it had occafioned a kernel in the groin, and foon dried up. On examination, a fab, the fize of an Englifh fhilling, was found on the tibia, juft below the knee :-ihis I cut off with an ablects lancet, and found that the flkin underneath was healed. I then made an incilion of fome depth, and applicd a caultic the full fize of the incruffation. He Sal. chalybis, gr. v. flor. zinci, gr. ij. m. fecundà quâq. horâ fumend.

With

With each powder a tea-fpoonful of red bark was directed in brandy, an opium pill at night, and occafionally a tea-fpoonful of a mixture of laudan. liq. 3 vj . ol. fuccin. rect. sij. an injection with tartar emetic in the morning, and the warm bath to open the pores.

The fafms returned only three times after the cauftic was applied, which occafioned a large fore, that ran freely. The bark was difcontinued, from occafioning a complaint in the bowels, and the powder of fteel and zinc continued by itfelf, till $3 \mathrm{v} / 3$. of the compofition were taken. I heard no more of my patient (being detained in another part of the country), till the twenty-fixth, when I was informed, that the rigidity was entirely gone; that there was a pain in the fomach, with coftivenefs and feverifh fymptoms, probably owing to the fore occafioned by the cauftic, for which calomel, ad gr. x. was prefcribed, and a mixture of laudanum and oil of amber to be taken with the bark. In a few days the girl could walk about, and was foon perfectly well.

AR TICLE IX.
On the Origin of the Cow-Pox.
By JOS. HEAD MARSHALL, M.D. \&c.
[Communicated by Mr. KING.]

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\text { Read, June i6, } 1800 .
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The very extraordinary affertion brought forward by Dr. Jenner, in his firft publication on the cow-pox, namely, that that difeafe originates in the horfe, and not in the cow, has occafioned much controverfy. The following fimple detail of a fact, that very lately came under my own obfervation, will, I think, tend greatly to elucidate it.

Being called to vifit a young woman, who is a dairy maid at a farmer's, I found her in bed, complaining of a pain in her back, laffitude and thirft. Her face was flufhed, and her tongue foul. Upon requefting her to give me her arm, I difcovered upon the hand four or five large pultules, which, from
my knowledge of the difeafe, I immediately afcertained to be cow-pox. On the back of the hand there had evidently been a long fcratch, on a part of which appeared the primary puftule ; the others were very near it.

Upon making a ftrict inquiry, I found one of the cows had this difeafe, and that in feveral of the others, it was alfo advancing. On farther inquiry, I alfo found, that the farmer had a horfe with fore heels in the ftable, which his fon always attended, who did not ufually milk the cows; but that one morning, this cow being troublefome and reftive, he had, to relieve the dairy-maid, milked her himfelf,

From this plain and fimple fate of facts, the origin of the difeafe became, in this inftance, very apparent, as it could be clearly traced from the horfe to that individual cow which the young man milked, and through this medium to the dairy-maid, and thence to the reit of the herd.

JOS. H. MARSHALL,

Vol. VI.
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## ARTICLEX.

A Cafe of Framboefia Guineaenfis, or Pazes.

> By Jos. adams, M.D. Sic. of the Island of Madeira.

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\text { Read, June 30, } 1800 .
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In the latter end of September 1798, a young Danifh nobleman, in the naval fervice of his king, was left at this ifland, his health not permitting him to continue his voyage to the Weft Indies. He complained of a flight but tolerably regular intermittent, attended, during the paroxyfm, with a fpafmodic contraction of the fauces. For this he found fome relief in bark, the power of opening his mouth returning as the fever went off. This relief was only temporary, nor were other tonics attended with better fuccefs. He took a grain of calomel daily for ten days, during which his mouth became flightly affected, and his fever completely left him. It however returned as his gums recovered, and recourfe
was had to fal ammoniac, myrrh, and chamomile. Thefe feemed to fucceed after five days' ufe, but the remiffion of fever was attended with an univerfal pimply eruption over the face, and inflammation of the throat.

In the fpace of two days the eruption was univerfal, excepting on his hands and feet. The throat became ulcered, and the glans penis was covered with feveral fmall, but not painful ulcers. For feveral days the ulcers fpread on both thefe places, and the puftules continued to increafe; his fever returned, and the throat and pufules of the face were attended with confiderable pain. The latter had arrived, in lefs than a week, to the fize of fmall-pox puftules; and the interfitial part of the fkin being redder than ufual, gave the whole very much the appearance of that difeafe. The figure of the puftule was indeed fomewhat flatter, or rather more horizontal, the edges rifing perpendicular from the fkin, and the furface being plain. There wanted allo that appearance of indentation which very foon difcovers itfelf in finall-pox, and frequently in the chicken-pox alfo. The throat had precifely the appearance of a venereal fore throat, but was more painful.

The continual increafe of the puftules after thofe of the fmall-pox fhould have fcabbed, precluded all doubts concerning that or any fimilar morbid po:ron. In order, however, to fatisfy myfelf ftill further, I had removed the pellicle from one of the puftules, and, inftead of the flough peculiar to the fmall-pox, found only a rough nloughy furface attached to the fubjacent cellular membrane.

By the application of aq. phageden. the ulcers on the glans penis foon became ftationary, put on a better appearance, and healed. It was therefore evident they were not venereal, and as there was every reafon to believe the puftules only differed from thefe ulcers in being covered by a thicker cuticle, it was highly probable that the cure of them alfo was within the power of the conftitution. It feemed, therefore, prudent to watch the difeafe, without attempting to interrupt it.

The eruptions continued to increafe in number and fize to fuch a degree, that the forenefs, abftracted from the pain which was confined to thofe in the face, rendered life fcarcely tolerable. Before the end of the month, my patient counted, befide a number of finaller ones, fifty-fix large fores; fome of which be-
ing of an oval form, were not lefs than from two to three inches in their largeft diameter. He was befide this reduced to a fleleton; for though his appetite was throughout the whole better than could be expected, yet the flate of his throat prevented his fwallowing even liquids without very great pain. From this time no new ones appeared, and all of them began to fcab. If therefore the difeafe was yaws, which I had long fufpected, the prefent feemed the time at which, by the concurrence of moft authors, mercury may be exhibited to advantage. The corrofive fublimate, though given in very fmall dofes, was more than the ftomach would bear: it was therefore given up almoft as foon as tried; and, as moft of the fores howed a difpofition to fcab, no other preparation of mercury was exhibited. The fever continued all this while with as much violence as before, and the fate of the throat preventing the exhibition of bark by the mouth, it was given by clyfter with an opiate. Though, at freft, it did not leffen the fever, yet the general irritability of the conftitution was much abated, and by degrees the fever fubfided. The following had becn the appearance and progrefs of the
pufules: the cuticle fhrunk and hardened into a fcab, with the pus underneath it; in this manner it remained for a few days, when a fuppuration commenced at the edges of, and under the fcab, from which matter iffued, and either raifed part of the fcab, or was diffufed over it, or attached to its circumference, and hardened uponit. This was repeated an indefinite number of times, and each time attended with a return of fever. If any hairs were in the neighbourhood of a puftule, they were fo incrufted with pus as to make them appear white. The accumulation and hardening of matter over the fcab, gave fome of them the appearance of being fudded with tubercles: in others, the accumulation was more regular, fo as to exhibit a horny appearance: the colour was, for the moft part, of a light brown; but where blood was mixed with the pus, the complexion was redder. Wherever the inflammation ran high, the pus was thinner, and never hardened on the part. This happened only on a few puftules of the face.

In about two months from the firft appearance of the cruption, the fever returned with as much violence as before the cruption, particularly
ticularly thofe about the face continued dry, and, in a few days, a flight leparation of the edges of fome of the fcabs fhowed a found fkin underneath I had therefore no doubt but that the return of fever was fymptomatic of a new action taking place, namely, that of defquamation and the formation of new fkin, as the former fevers had been fymptomatic of eruption and fuppuration. This difpofition to fkin was not univerfal, fome of the puftules fill continuing to extend in the manner before defcribed. They were however few, unattended with pain; and the new fuppuration, inftead of extending round the whole fcab, was confined to an inconfiderable portion of the edge. On removing any of the fcabs, a fungus, covered in fome inftances by a thin cuticle, was found fhooting out of the foveolus, that had been the feat of the flough.

The ulcer on the throat had made fuch ravages, that I was fearful the whole uvula would be deftroyed. The left fide was entirely loft, and what remained, inftead of hanging in its natural form, was drawn by its mufcular fibres to the arch formed by the right tonfil. The

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\mathrm{G}_{4} \quad \text { voice }
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voice was as much affected as when the uvula is loft by a venereal ulcer. As the other fymptoms abated, however, the throat recovered nearly its original figure, and the voice its natural tone. Though the violence of the fever had now fubfided, yet it returned occafionaliy, and was confantly attended with a new fuppuration in fome of the puftules, or rather at a fmall point in the edges of fome of them. The paroxyfms lafted, at intervals, for three or four days; during which, however, the appetite continued, and, at the remiffions, was that of a convalefcent. At the end of fix months from the firft fymptoms of fever, and four from the cruption, moft of the puftules, particularly thofe on the legs, and many about the body, had fcaled off, the throat was nearly well, and this fucceffion of fymptoms was to be afcribed to the refources of the conflitution, which was only fupported, without any aitempt at altering its actions.

I was unacquainted with yaws but by defeription, and iny patient had been ten months abfent from the Wef Indies beforc he felt any indifpofition. During his flay there, all he recollected that might have expofed him to the difeafe was, that being once with a phyfi-
cian, who was vifiting the fick negroes of a plantation, he was defired to keep at a diftance from on of them. It was therefore fortunate, that enough of the putules fill remained in a fate of partial fuppuration, to fatisfy Dr. Wright, who at this time touched at our ifland in his return to the Weft Indies, that the difeafe was truly yaws. As it was of the moft violent fpecies, the puftules being large as well as numerous, it may be right to diftinguifh between fuch fymptoms as are peculiar to this fate of the difeafe, and fuch as are common to all. The fever was much greater than ufual, the generality of patients fhowing little or none; but this variety is not greater than the fecondary fage of the venereal difeafe, which is often attended with fever, counterfeiting the intermittent. This fometimes goes off as the eruption appears, and fametimes the eruption is preceded by no fever. 'The fpafm on the fauces muft be confidered as an accidental circumftance. The difeafe does not ufually attack the throat, but inftances of it are mentioned *. I have before remarked, that its appearance no way differed from the venereal ulcer on that part.

* See Hunter's Treatife on the Venereal Difeafe, p. 383 .

The furrounding inflammation was indeed more confiderable, continued longer, and the pain was much greater. The following I confider as the genuine character of the difeale, by which it may be diftinguifhed from all other morbid poifons.

I have already remarked the figure of the puftules in their early fage. If at this time the cuticle is taken off, you find under it a rough whitifh furface, confifting partly of flough, and partly of living animal matter. This I conjecture, becaufe, on the clofeft obfervation, the pus appeared formed over the furface, and not at the edges only. Where the cuticle is left, the matter ufually puthes out at the extremities, but fo flowly as only to harden upon it. Suppuration is not conftantly going on in any of the puitules, excepting where the inflammation is very high, as was the cafe in the face. In other parts, fome purtules appear to fuppurate at one time and fome at another, but commonly feveral at the fame time. Hence the drying and hardening of a fcab is no criterion that ulceration has ceafed, and that the part will flkin. Even the fame individual puftule will heal in one part while it spreads in another.

From the time, however, that the fcabs begin to dry, may be called the fecond ftage of the difeafe; and if at this time you break off the fcab, you find a red fungus fhooting up under it.

There were no pits left after healing in any part but the face. In thefe the inflammation was fo violent, and the matter fo thin, that, inftead of hardening under or upon the cuticle, it proved more than any fuperficial dreffing would abforb. Hence, inftead of a \{cab we had an open fore, and inftead of a fungus fhooting up, the part fkinned over, without any previous granulation. This is analogous to what I have obferved in fmall-pox, and all other morbid poifons *.

To give the character then in as few words as poflible:-If in the carly ftage of the puftule you remove the cuticle, you are to expect a ragged but moiff flough. In a later ftage, if you remove the $\int c a b$, you will find a fungus, varying in fhape, fize, and colour, according to the period of the yaw. Where the inflammation is very high, you will neither have fcab nor fungus; but when fup-

[^7]puration ceafes, the part will flin over, and leave a pit.

Authors have generally remarked, that all the hairs near the yaws turn white. This was not permanent in my patient. He had indeed no hairs near any of the puftules that granulated. On the face, where pits remained, the hair was not renewed for more than two months. The few that then grew were of the natural colour. I have already remarked fome appeared white, from being covered with pus. Thefe were about the eyc-brows, and recovered their colour on being wafhed. This patient had the fair complexion of the natives of a northern latitude. It is probable that, in darker people, the hair may turn white, as we know it fometimes dnes after cicatrices from common wounds in the head, and as frequently happens in the black hair of other animals.

Having thus deferibed the character of the difeafe, I thall offer a hitory of it, founded on obfervation, and leading to practice.
ift. The violence of the difeafe muft be in proportion to the fufceptibility of the conflitution for it.

2d. When the fufceptibility is great, it is likely to be proportionably permanent, and, as long as it continues, the matter of each puftule will infect thofe parts it comes in contact with. Hence the fpreading of the fame individual puftule or fcab.

3 d . That nothing will deftroy the fufceptibility of a part, or the whole conflitution, but its full action. Hence,

4thly. Though the action may be fufpended for a time, by exciting a different action, yet, the fufceptibility fill remaining, the action will return as foon as that which fuperfeded it ceafes.

To illuntrate this theory the better, I fhall contraft yaws with the only two morbid poifons to which it bears any analogy, without exactly refembling either.

The venereal is a poifon of which the confitution is for ever fufceptible, and which it has no power of curing in itfelf: confequently the matter from every ulcer affects the contiguous parts, and the difeafe is kepe up for ever, or till a more powerful fimulas is applied; after which, on a freh application of the infection, the conftitution is found as furceptible as before.

The

The fmall pox is a poifon of which the conftitution is no longer fufceptible, after having gone through a certain fever and eruption, occafioned by the application of its poifon. Confequently, from this time, the contiguous parts being infenfible to the variolous irritation, all the puftules heal without fpreading, and the conftitution is found to have loft its fufceptibility on a frefh expofure to the infection.

Of yaws, on the contrary, the conflitution remains fufceptible after the eruption and fever (if any happen to attend it) are completed. Hence, as in the venereal, the pus affects the contiguous parts. But this fuiceptibility only continues for a time, uncertain according to the difference of conflitution, or flate of it at the time. When the fufceptibility ceafes, the parts heal as in the fmall-por, though more flowly, from the flow progrels of all the other actions. When healed, the conftitution has for ever loft its fufceptibility for the difeale.

In one point they all agrce, namely, that they may be fuipended for a time by another more powerful fimulus, but will fhow themfelves as foon as the effect of that itmulus
ceafes. When it happens that the conflitution is infected by abforption from a local venereal ulcer, the confequent difeafe will never fhow itfelf while the mercurial irritation which cured the chancre continues; but when that irritation ceafes, the difeafe will appear in the fkin, fauces, or bones *.

In the fmall-pox, inoculation has taught us, that, after the infection is received by a conftitution fufceptible of its impreflion, the difeafe may be for a time fuperfeded by fome other irritation, moit commonly an eryfipelatous fever, or the meafles. As foon, however, as thefe ceafe, the fmall-pox refumes its action, and continues its courfe.

In yaws, the progrefs of which is particularly flow, it appears that, even after the difeafe has proceeded to fuppuration, it may be fuperfeded for a time by mercury. But if that remedy has been applied before the full action of the difeafe, namely, fcabbing, has taken place, whenever the mercurial irritation ceafes, the yaws refume its action, which

* As this refts on a long deduetion of faets and reafoning, the reader who has not previoully fudied the fubject muft be referred to Hunter on the Venereal Difeafe, p. 305 , and Morbid Poifons, p. 235, \& feq.
it continues as long as the conftitutional fufceptibility remains.

To conclude, the conftitution is always fufceptible of the venereal poifon; fo that the difeafe will fpread till fuperfeded by a more violent irritation; and return on a frefh application of the poiion. The fmall-pox will cure itfelf as foon as the fuppurative fever is over; and, with the difeafe, the fufceptibility for it is extinguifhed for ever.

In yaws the fuppuration, whether attended with fever or not, does not immediately relieve the conflitution from its fufceptibility to the difeafe : nor is there any remedy yet known that will cure it. But this fufceptibility ceafes by degrees, after which the parts heal, and the fufceptibility never returns.

Though only the venereal is abfolutely incurable, excepting by a remedy, yet all three may be arrefted, at certain fages, without being cured.

That fuch is the nature of yaws, appears from cevery authority I have been able to find, and from my own obfervation. The anonymous and modeft author of a paper in the Edinburgh Medical Effays, Dr. Hillary, and Sauvage, all agree, that if mercury is given before
before all the yaws are fcabbed over, the beft that can happen is a return of the difeafe when the mercurial irritation ceafes; but all of them, as well as Mr. Hunter, mention very calamitous events that have fometimes followed the early exhibition of mercury. The two firlt mentioned writers (the only two practical ones) never feem to have left the difcafe to its natural cure, and differ much in their opinion of fuch a practice. Hillary, with his ufual haftinefs conceives it would always kill the patient; but the other has the modefty to believe it would probably get well of itfelf, though he never had the courage to try. Both agree that, after falivation, fome of the yaws will ob\&inately refift, and that it will be neceffary to rub them with cauftic to the bottom.

Such was the exact progrefs of the difeafe with the Count, to whom mercury might be faid never to have been exhibited, or to have been exhibited fo flightly, as to produce no effect. When the fcabs began to fall off, they continued to do fo, feveral every day; but, on the arms, fome remained, which it was found neceffary to rub with cauftic. Even thefe would fometimes ulcerate afrefh

Vol. VI.
Perhaps

Perhapis they were not fufficiently cauterized. They were at laft left to themfelves, and healed fpontaneoufly.

I hould be unwilling to fix a practice from any fingle infance: but the prefent cafe, by the accounts of all the authors above referred to, and by Dr. Wright's authority, healed earlier than is ufual, where the puftules are fo numerous*. I Thall, however, not feruple to give it as a gencral caution, in all cafes of ulcer or eruption, whether proceeding from morbid poifons or not, never to give mercury till the difeafe explains itfelf. Should it prove venereal, the remedy cannot be too foon exhibited. Should it prove a morbid poifon of a different kind, it would be advifeable to wait as long as we can with prudence, to fee whether the difeafe is within the powers of the conflitution, in which cafe it may be beft to interrupt it as little as pofible. If, on the contrary, we fee no difpofition to heal, and the difeafe rapidly gaining ground, though we cannot find a remedy more likely to fucceed

- About thirty wseks from the cominencement of the eruption.
than mercury, it Thould be given with great caution.

I cannot conclude this paper, perhaps already too long, without an enquiry whether the leprofy of the Jews was yaws or not. In thefe remarks I fhall confine myfelf to the Vulgate, as much more pointed in characterifing the difeafe, though there is nothing in the Septuagint that contradicis it.
"When," fays the divine lawgiver *, " a man fhall have a rimg, a fcab, or a bright fpot;" this conflitutes the early ftage, when the pimple is juft forming, or the cuticle broken off, fo as to difcover the flough underneath, fplendid from the exudation of a fmall quantity of matter, or when the matter begins to harden into a fcab. In the fecond ftage, viz. when the lofs of the cuticle and contraction of the flough has fhowed a depreffion, fo that the "plague was deeper than the fkin," and the matter had encrufted the " hair, fo as to turn it white," the difeafe was confidered as beyond a doubt, and the fubject pronounced unclean. But if no lofs of fubftance appeared, and the fpot was not lower

* Levit. chap. I3.
$\mathrm{H}_{2}$
than
than the found part, nor the hair altered, the fubject was to be fhut up for a week, at the end of which, if the difeare was ftationary, feven days more were required. If the difeafe now became a dry fcab, of a darker complexion, without having fpread, it was to be confidered a common fcab, and the fubject re-admitted into the camp. But if the feab had increafed between the firt and fecond examination, the fubject was to be again fecluded for a future examination, and if it then appeared that the fcab continued to fpread, he was to be pronounced unclean.

In the next fage, the excrefcences being all white, and the hair alfo, the prieft was directed to look for the red fungus underneath, and, if he found " quick raw flefh in the rifing," he was to confider the difeafe an old [or confirmed] leprofy, and exclude the patient accordingly.

Laftly, he was to determine when the patient might be confidered as no longer infectious, and re-admitted into the camp. For this purpofe every part of the body was to be (xamined, and if all the cicatrices were covered with a new cuticle, which, in this cafe, will be opake and "white," the fubject
was to be declared clean ; but if any of the fungus fleh remained uncovered, or covered only with a thin tranfparent cuticle (in both which cafes the appearances will be that of "raw flefh"), the prieft was directed to feclude the fubject, till, on a future examination, every part appeared white, and then, after the neceffary ablutions, he was to be readmitted into the camp*. The reft of the paffage relates to an old cicatrix, or an open fore of any kind, becoming the feat of a leprous puftule.

The above defcription exactly refembles yaws, and no other difeafe now known, in every material point : in the veficle, or puftule; in the depreffion from the lofs of the cuticle, and the contraction of the floughy part beneath; in the fubfequent fungus; in the difpofition of the fcab to fpread; in the changing the hair to white; in the infectious property of the difeafe; in the flownefs of

* Dr. Mead fuppofes, that this laft paffage, ver. 12. and 13. relates to a different difeafe: but there is no foundation for fuch an opinion; and whoever carefully compares Dr. Mead with the text, will be convinced of the fallacy of the doctor's arguments.
its progrefs; and, lafly, in the conflutution being equal to its cure. In moft of thefe it differs from the Arabian leprofy fa difeafe well known in the iflands), and, in many particulars, from the lepra grecorum.

It is moft probable, by the prudent meafures purfued during the long march through the wildernefs, that the yaws was altogether extirpated from the Jews before their arrival in Paleftine. For though lepro!y is fpoken of in other paffages; it was evidently a different difeafe. The cafes of Mofes and Miriam are not to our purpofe, as they were both antecedent to this event. The cafe of Naman ( 2 Kings, chap. v.) was evidently different, Firf, it was incurable by any human means, or by the powers of the conftitution. Next, the univerfal whitenefs, which was confidered as a fymptom of recovery from the former difeafe, appears in this to characterize its worlt ftage. For, after the malediction of the prophet, his fervant "went out a leper, as white as fnow." Thirdly, this difeafe does not appear to have been infectious; elfe Naman would not have foken of the King his mafter as " leaning on his hand" (by which
which he muft at leaft have been near his perfon), when performing his devotions, or "worfhipping in the houfe of Rimmon." Laftly, there is no intimation that Naaman's wife, or any of his family, were infected, or that his fervant was apprehenfive of being fo.

It is however probable, that the two difeafes, having the fame name, might be confounded, and, when one of them had difappeared, the other might continue to be treated like the former. For though it fill remains a doubt, whether the Arabian leprofy be infectious, and is a matter of certainty, that, if at all, it is very little fo, yet that it is often hereditary, is univerfally allowed. For thefe reafons, probably too on account of the miferable appearance of fome of the fufferers, it is the policy of moft nations inhabiting warm climates, to exclude them from fociety. On this account probably it was, that the prophet did not go out to Naaman, but fent him a meffage into the ftreet. For the fame reafon he might not permit his fervant to accept the fmalleft prefent ; and, when he found that he had deceived him, pronounced the curfe
on him, and "his feed for ever." This may appear a cruel fentence: thofe who think fo fhould confider the punifhment inflicted on the culprit as neceffarily implying a difpofition to the fame difeafe in his progeny. But a careful examination of the paffage will at once fhow, that the punifhment was confined to the culprit. " Is this a time (fays the prophet, alluding to the diftrefied fate of the country) to receive money and garments, and olive yards, and men fervants and women fervants." - But, perhaps, you look forward to a more fettled fate of things. "The leprofy of Naaman cleave to thee and thy feed for ever." Go, you have a difeafe which will exclude you from that intercourfe with the world, by which only you could enjoy your ill-gotten wealth; nor can you expect your pofterity to inherit it, as the law will preclude you from having any.

Of the four lepers mentioned at the fiege of Samaria *, we have no defcription. We find, however, that they were excluded from the city, and probably overlooked during the general diftrefs. In this fituation they re-

[^8]folved to offer themfelves to the enemy; which they did about twilight. Thofe who have feen the wortt ftages of the Arabian leprofy, need not be told how horrible the countenance appears. It is well known, that the round eyes, flat nofe, red tuberculated vifage, exhibits fo much the afpect of a lion, that the difeafe has been called leontiafis, as that on the leg and foot has been denominated elephantiafis.

Four fuch objects as thefe appearing by uncertain light, unarmed, and without any of that hurry or agitation which attend deferters, might, in thofe days, very naturally fuggeft, to the outpofts, the idea of fupernatural agency; and, when the panic once became general, different reafons would be affigned for it in different parts of the camp. I ought to remark, that there is nothing in this that invalidates the teftimony of miraculous agency; the only unequivocal proof of which, as an ingenious and learned writer obferves, is prophecy. Nothing lefs than infiration could have taught Elifha, during a time of univerfal diftrefs, that, on the following day, every thing would be abundant,
or the fall of the nobleman who doubted the truth of fuch a prediction. Thus the miracle is quite as complete, though lefs complicated; nor is this ftatement any way contradicted by the written account.

The leprofy of King Uzziah *, appears alfo to have been incurable; for, immediately on its difcovery, a fucceffor was appointed; and we are told that the difeafe continued, and he lived in a feparate houfe during the reft of his days.

* 2 Chron. chap, xxvi。
ARTICLE XI.

> A Cafe of an Extra-uterine Falus.

By A. FOTHERGILL, M.D. F.R.S. \&c.
Read, March i6, 180 i.

Sunt lachrymæ' rerum et mentem mortalia tangunt. Virg.

Some time ago, Mrs. Gunning, a middle aged woman, an inlabitant of the environs of Bath, confulted me on the nature of her cafe, concerning which the had had the opinion of various medical pracitioners, and had taken fundry medicines without obtaining the fmalleft relief. The abdomen was greatly enlarged, particularly on the left fide, attended with total lofs of appetite, great thirft, conftipation, tenefmus and frequent vomiting; urine very fcarce and high coloured.

She had for many months undergone fevere lancinating pains in the umbilical and left hy-pochon-
pochondriac region, darting through the fmall of the back, and returning at fhort intervals. Thefe fymptoms had increafed fo much of late that every effort to pafs urine or ftools, or to change her pofture, gave her unfpeakable torture. Her pulfe hard, depreffed and unequal, upper and lower extremities greatly emaciated, fkin flaccid, countenance pallid, and expreffive of the utmoft diftrefs.

As the had been married many years without ever having had a child, as her catamenia had difappeared about fixteen months ago, and being now in the forty-feventh year of her age, it was naturally fuppofed it could not be a cafe of pregnancy, efpecially as the os uteri had teftified no fuch fign during the pains, and the ufual period of uterogeftation had fo long elapfed. It was therefore generally concluded that the difeafe under which the laboured muft be a dropfy of the encyfted kind, particularly of the ovarium. The fymptoms however not according well with my idea of that, or any other fpecies of dropfy, I refolved to examine more minutely into the cafe. Though an obfcure fluctuation could be felt, yet the tumor was not fo much cir-
cumfcribed as in a dropfy of the ovarium, prefented a more unequal furface, extended more towards the oppofite fide, and occafioned more pain on being preffed. I next proceeded to inquire whether, within the firft month from the ceffation of her menfes, fhe had not felt an unufual fenfation accompanied with naufea? Whether the abdomen did not afterwards begin to enlarge and increafe gradually? Whether the breafts in the fubfequent months did not begin to grow turgid? Whether a ferous fluid did not afterwards ouze from the nipples? And finally, whether, near the clofe of the ninth month, fhe did not feel acute pains about the region of the womb, of a different kind from any fhe had experienced before, and attended with a fenfe of preffure and bearing down? To all which the anfwered in the affirmative.

From this view of the cafe, with all the concurring circumftances, I ventured to declare my full perfuafion concerning the actual prefence of a child in the abdominal cavity, though not in the womb. Having privately informed her hufband concerning the hopelefs ftate of the cafe, of the impoffibility of deliver-
delivering her without haftening her end, which indeed feemed faft approaching, I hinted that the only chance remaining was the diffolution of the child by putrefaction, and its being afterwards difcharged piecemeal by one of the natural outlets, or by an abdominal abicefs-a circumftance demanding extraordinary efforts of nature, rather to be hoped for than expected in the prefent cafe.

Convinced that nothing could be attempted beyond the palliative plan, I endeavoured to foothe the vehemence of her excruciating pains by a liberal ufe of opium, internally and externally, by the tepid bath, and by embrocating the abdominal region with warm camphorated oil. By thefe means, and by gradually increafing the opium till fhe took two drams a-day, the feverity of her fufferings was confiderably mitigated. At length, a fudden diarrhœa came on, accompanied with a very profufe difcharge of a mixture of blood and fanious matter, highly offenfive. The urine began to flow copioufly, and the fwelling of the abdomen fuddenly fubfided to its natural pitch. All the fymptoms abated and the enjoyed a temporary truce. Having now reach-
ed the clofe of the feventeenth month of her pregnancy, being worn out with a long feries of infupportable fufferings, what fhe had often withed for at length arrived, and fhe calmly yielded to her fate.

Her death happened in Auguft laft, during my abfence in London. On my return, I found the body had been opened by an able furgeon, according to her own requeft made fome months before. The uterus was found nearly in its natural flate without any vifible fign of impregnation; behind it was found almoft the entire fkeleton of a fuil grown child, part of the bones had perforated the rectum, and the reft, by their preffure, had rendered the lumbar vertebræ quite carious. The urinary bladder was confiderably thickened and contracted in its dimenfons, the reft of the vifcera did not, it feems, appear materially altered.

> REMARKS.
I. Intricate as the prefent fubject is, it may poffibly admit of fome elucidation. In the mytterious procefs of generation, whether the feminal fluid be conveyed to the copus luteum
by abforption, or only the animating aura exhaling from its more fubtile parts, we need not at prefent contend, becaufe the act of conception feems always to take place in the ovarium alone: In the critical moment of impregnation, it fometimes happens that by fome unlucky incident the ovum, inftead of being conveyed into the uterus ordained for its reception, attaches itfelf to the inner coat of the ovarium, or of the Fallopian tube, or of the abdominal cavity; where, like a parantical plant, it takes root and arrives at maturity. Thus the germ of the mifletoe, when deprived of its favourite oak, readily attaches itfelf to a neighbouring thorn; and thus the fpur of the game cock is faid to have been transferred to his head, and, by a curious though whimfical experiment, engrafted on his comb.
2. Extra-uterine pregnancy being very obfcure in its nature, demands minute inveftigation, otherwife it is liable, as we have feen, to be miftaken for a dropfy of the ovarium; but it may neverthelefs be diftinguifhed by duc attention to the hiftory of the cafe, and the figns already mentioned, and particularly by
its being attended with more intenfe pain and more formidable fymptoms, except in certain rare inftances, where the foetus, enveloped in a gypfeous incruftation, without exciting inflammation or ulceration, has lain dormant many years without being difcovered till after death.
3. But when the foetus burfts from its inclofure in the ovarium or Fallopian tube, and increafing in bulk, acts by irritation and mechanical preffire, it deranges the female œconomy, injures and erodes the adjacent parts, and it cannot but produce exquifite pain and mifery. This, in the prefent unhappy cafe, may account for the erofion of the vertebre, the ulceration of the rectum, the contraction and thickening of the bladder, the difficulty of urine, the putrid ftools, the violent tenefmus, \&xc.
4. The difturbance occafioned by the extrauterine foetus prompis Nature to exert all her powers to expel the unwelcome intruder. In a few rare inftances the happily fucceeds, but far more frequently fails in the attempt, and the violence of the conflict proves fatal both to the embryo, and its mother. At the ufual period of delivery, the calls forth all the Vol. VI.
energy of the uterus in producing ftrong labourpains. Thefe proving fruitlefs, fhe tries to diffolve the extraneous, body by putrefaction, and by fubfequent fuppuration to form a convenient opening for its complete expulfion. At other times, the encafes it in a ftoney incruftation, which preferves the embryo, and protects the neighbouring organs from purrefaction.
5. It tnay not be improper to add that, in certain difficult labours, the gravid uterus is accidentally ruptured, and the foetus efcapes into the general cavity. This dreadful accident is known by the exquifite pain it occafions, and by forcing from the unhappy fufferer a loud fhriek. The labour-pains inftantly ceafe, a profufe flooding enfues, followed by cold fweats and fyncope. In this critical fituation, ought delivery (according to the common practice) to be immediately undertaken though the os uteri be not properly dilated? Or ought we not rather to wait for that event? Does not the immediate fop put to the labour-pains point out the propricty of this? That eminent acoucheur, Dr. Garthfhore, in his elaborate paper in the Sth vol. of the London Medical Journal, mentions no lefs than ten cafes of this kind, wherein he
had been confulted; and obferves, that moft of thofe have died where the delivery was haftily undertaken, and that many have recovered when left entirely to nature. Whence it may be alfo inferred, that fuch deplorable accidents are neither fo uncommon, nor yet fo conftantly fatal as is generally imagined. If many furvive a rupture or laceration of the uterus, it furely affords no mean argument in favour of the Cæfarian operation, unlefs it can be proved, that a lacerated wound is lefs dangerous, and heals more kindly than one performed by a very fharp inftrument. Bianchi relates a remarkable cafe of a woman who became pregnant, at three different periods, of three feparate extra-uterine children, all which died in the early months of pregnancy, became putrid in the body, and were all extracted through an ulcer in the umbilical region. The woman, he adds, not only recovered completely, but became fruitful afterwards.
M. Tenon, eminent for his long experience, affures us that in all extra-uterine cafes, and in the greater part of thofe where the child has burft either wholly or partially through the
uterus, the French accoucheurs conftantly extract it through the divided parietes of the abdomen; confidering this as by much the fafeet practice. He adds that the Cærarian operation is much lefs fuccefsful in this country than it is in France, becaule we defer it too long; and he further affures us, that fince their firft practifing this operation, in the time of Bauhin, feventy-eight women have been faved by it at the Hotel-Dicu of Paris. It moreover appears, that this is the prefent method of practice, not only in France, but in Germany, and the Low Countries, eftablifhed, on what is conceived to be the fure teft of experience, and declared to be the only means of faving both mother and child.

In the 2 d volume of Memoirs of the Medical Society at Paris, we have an account of two fuccelsful Cæfarian operations, and in the Journal de Medicine for Auguft 1786, of the total extirpation of the uterus. If we may credit thefe reports then, the Cælarian fection is not neceffarily fo fatal as fome have been led to imagine. To conclude. Since thofe unfortunate cafes of extra-u+erine pregnancy can neither be forefeen nor prevented, much lefs remedied when known, by any means fhort of this operation,
it becomes an object worthy the ferious confideration of our Englifh practitioners, whether the chance this may give of a cure, may not be grearly preferable to that long protracted mifery and diftrefs which the unfortunate fufferer inevitably muft undergo from her extra-uterine burthen; fhould fhe even be fuccefsful enough to furvive its expulfion piecemeal through the parietes of the abdomen, or by the inteftirial canal.

Bath, October 24, 1800.
ARTICLE XII.

A Cafe of inverted Uterus after Parturition.
By THEOPHILUS DYSON, SURGEON, F.M.S.
Read, MAy if, isor.

Early on the morning of the firft of January laft, I was called to attend the wife of Mr . N. in the city. She had been brought to bed about an hour before of her eighth child. The midwife who had delivered her of all her children informed me, that fhe had had a good natural labour, as ufual, but that The found the placenta adhering fo firmly as to induce her to defift from any further effort to extract it, without calling in profeffional affiftance. I found the patient, who was about thirty-fix years of age, (a fhort made woman, rather corpulent and of a fanguineous habit) low and faint, with a feeble pulfe. There had been a good deal of hxmorrhage. I ordered her to have a draught of porter, and
fat dorm to examine what flate fhe was in. Although fhe had felt no pains for fome time to affift the expulfion of the placenta, it was protruding confiderably into the vagina. The funis was yet firm; I therefore urged with gradual force to extract it without introducing the hand, in which I very foon fucceeded. I oblerved it to be the thinneft and moft expanded I had ever met with, much refembling a pancake, and apparently having embraced the greater part of the internal cavity of the uterus. My patient now complained of great pain, as if fomething was fill forcing from her. I was about to introduce my hand into the vagina, to bring away any coagulum or detached fubftance, which I fuppofed might caufe this uneafinefs, when it was prefently met by a firm round body of confiderable fize, the nature of which I did not immediately comprehend: a few minutes more examination, however, convinced me that it was the uterus inverted; for by carefully gliding my hand around the fubftance thus protruded, I found that the cervix uteri, now become the fundus, as it were, entirely excluded all farther progrefs of my hand up the vagina. There was now very little bæmorI 4 rhage.
rhage. The after-pains continuing, rendered the body of the uterus fo firm and refifting that I did not attempt to replace it for near a quarter of an hour. By this time the pains fubfiding, I clofed the fingers of my left hand into a pyramidal form, and thus applying them to the central, and depending part of the inverted organ, gently pufhed the hand upwards, and without any difficulty readily returned the uterus into its natural and prifine fate.

The patient became immediately eafy, had no feverer after-pains, nor greater lochial difcharge than ufual ; but recovered as well as after any of her former labours, and without any particular complaint during her confinement.

Theophilus Dyson, Surgeon. London, March 28, 1800.

Mr. Dyfon begs leave to add, that fince the above cafe was drawn up, and read before the Society, he has attended the delivery of Mrs. N. of another child on the 3 If of Auguft laft. The labour was quick, but the placenta flow in coming down, and preceded by very confiderable hæmorrhage, which in- fion. After about an hour's moderate endeavour for extraction, without introducing the hand, the placenta came away whole, of the ordinary dimenfions and thicknefs ; the uterus remaining in its proper pofition.

New Bafinghall ftreet, 10 th Sept. 1801.

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A R Y I C L E X I I I
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An Account of an extraordinary Mafs of Difenfe found in the left Cavity of t'e I horax.

> By J. Carden, Surgeon to the Wurctster Infirmary, \&ic. F.m.S.

Read, May 25, 1801.
Upon removing the fernum and cartilages of the ribs, in the expofed fpace was feen a white fatty-looking fubftance, which concealed the heart and lungs. It extended over moft of the left cavity of the thorax, and a little beyond the edge of the fernum, on the right fide, adhering moft firmly to the pleura coftalis. The heart was completely excluded from the left fide of the thorax, its apex, (the bafis and apex lying in their ufual direction) not quite reaching the right edge of the fernum; the left lung was compreffed to the fize of half a fmall hand, and the diaphragm on its left fide and center, protruded towards
towards the abdomen in a deep pouch. Underneath the white fubftance, and feveral inches from its furface, lay a confiderable quantity of ferum and coagulated blood, contained in a cyft. The cyft was fmoothly lined, compofed of layers of a brownifh coloured lymph, and and covered exteriorly by a thin white capfule. The blood confilted of numerous difinct lumps. At the pofterior part of the cyit, and infeparably connected to it, lay the left lung, which had fuffered no other alteration than its reduction in fize, and the lofs of its fpongy texture; and its pleura was not thickened. In the pofterior part of the left cavity of the thorax, and firmly adhering to it, was a mafs of tough coagulated lymph, of a brown colour, and laminated ftructure, nearly equal in fize to the half of a found lung. The pleura coftalis of the left fide was thickened. The right lung was reduced in fize proportionally to the encroachment fuffered by the right cavity of the thorax, it was perfectly found in its ftructure, and the only mark of difeafe in this fide of the thorax, was a fmall elongated adhefion between the pleura pule
monalis and coftalis. The heart appeared fmall, but prefented no mark of difeafe in any part of it. The aorta and venæ cave were in a natural ftate. The right branch of the pulmonary artery, was fomewhat contracted in its capaciry, and its coats were diminifhed in thickuefs. The left branch was fo diminifhed in fize, that its diameter was a third lefs than that of the right branch, and its coats, refembled thofe of a vein. The left pulinonary veins were very much dwindled. No trace of any rupture of veffels appeared in any part of the left cavity of the thorax.

The abdomen contained about two quarts of brown ferous fluid, and there were marks of flight inflammation in the lower part of the fmall inteftines, and feveral very confiderable contractions in the colon, without any alteration of Aructure in the contracted parts. The left lobe of the liver was thruft confiderably forwards and downwards by the protrufion of the diaphragm, fo as to be thought, from feeling it externally, to be much enlarged.

The fubject of the difeafe, was a tall robuft man, aged thirty, who, upon the day of his admiffion
admiffion into the Worcefter infirmary, expired fuddenly as he was walking along the ward. His fuce and legs were anafarcous, and he breathed with difficulty. He had not been under the care of any medical practitioner, fo that an account of his illnefs could be got only from his wife. He had been ill at leaft a year, having a cough, pain in the left fide, and a fhortnefs of breath, very flight for forme time. His appetite did not fail till a week before he died, and his ftrength was fo little impaired, that he was able to follow hufbandry work till within ten weeks of his death. His complaints were twice much increafed, by wafhing fheep, and getting in hay during a flood. In the laft month of his life, his legs began to fwell, his urine was fcanty, he was coftive, had pain in the bowels, and his belly was very fore to the touch. A fortnight before his death, his face became bloated, and he had mild delirium at night. He complained of feeling a great load in the left breaft, but never noticed his heart's beating on the right fide. He preferred leaning over the back of a chair to any other pofture, and could fwallow his food better in this attitude.

From the degree of frength which the fubject of this cafe poffeffed for fo conliderable a time, during the progrefs of the difeafe, it would appear that little irritation was given to the fyftem by the difeafed action which produced the tumour. It was not till the laft month of the man's life, that his legs became dropfical, and his face became fo only in the laft fortnight, though the returning blood and lymph muft have been liable long before that time to great obftruction, from the fituation and fize of the tumour. The water in the abdomen was probably produced by inflammation. The white fubftance, which formed the principal part of the tumour, and would feem to have been a particular form of coagulated lymph, had a very greafy feel and appearance, but on boiling it no oily particles were extracted, and it loft entirely its fatty appearance and brittle texture, becoming tough, and not unlike boiled veal. A fubftance fimilar to it, is taken notice of by Morgagni, as having been found in aneurifms. A fimilar fubftance to the mafs of brown laminated lymph, I fuppofe that to have been, which is termed moles quædam carnea, in a cafe related in the Sepulchretum Boneti,
lib. ii. fect. 2. obf. 4. addit. ; and this cafe in its fymptoms, and in the tumour being fituated in the thorax, and proving fatal from its fize, refembles much the one before us. With regard to the blood (which from its confifting of Separate lumps, may be fuppofed to have efcaped at different times) in not having been found to proceed from any rupture of veffels, it is fimilar to a circumftance that has been noticed by Dr. Baillie in his Morbid Anatomy, where he obferves, that " cafes have occurred, although very rarely, in which a large quantity of blood has been accumulated in the cavity of the pericardiurn; but where no rupture could be difcovered after the moft diligent fearch, either in the heart itfelf, or in any of its veffels."
A R T I C L E XIV.

> Hiflory and Diffection of a Cafe of inteftinal Ulceration, with Remarks.
By H. Field, Sec. M.S.

Read, June 22, 1801.
A physician now living, highly efteemed for his medical fcience and publications, has juftly obferved that "the recital of cafes which illuftrate the ftate of the body in any particular difeafe, either by making known the appearances which take place in the patient when living, or which are found on diffecting the body after death, and which are different from thofe in health, is of great importance toward the improvement of medicine."

With this view I beg leave to fubmit to the Medical Society the Collowing cafe, which has no other claim to attention, but what is derived from accuracy of obfervation and a ftrict attention to facts.

Mr. G—— H——, aged thirty-four, a ftout, well made, mufcular man, had formerly been in the army, and, having been taken prifoner by the French during the government of Robefpierre, was thrown into prifon with a confiderable number of his countrymen, where he remained about two years, and during that time was literally almoft farved, having, for the greater part of it, nothing but bread and water for food, and bed and cloathing very inadequate to defend him from the frequent inclemency of the feafon in which he was confined. Add to which he laboured for a confiderable par: of this period under a chronic dyfentery. In confequence of fimilar hardfhips a great number of his comrades funk, but, by the aid of a renarkably good conftitution, he happily furvived, and at length returned to his native country. For the fpace of two or three years after this, he appeared to enjoy good health, with the exception of an occafional eruption of a dry herpetic afpect upon his hands, and which, when it fubfided, was followed by finking of the fpirits and nervous depreffion.

Vol. VI.

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For feveral months previous to his death his friends obferved him to diminifh in flefh; he looked unhealthy, and there was a certain melancholy upon his mind, which was very unnatural to him, as he was poffeffed of great fortitude, and firmuefs of animal fpirits. During this time his body was irregular as to ftools, occafionally too much relaxed, but more frequently the reverfe; and he complained much of naufea and indigeftion; he applied for no regular medical affiftance, but is underfood about this period to have had recourfe to advertifed medicines; he is known to have taken Dr. James's powders, Spilfoury's drops, and probably other remedies of that defcription unknown to his friends.

About a fortnight before death, his naufea increafed to frequent and painful vomitings; he laboured under a diftreffing fenfation of heat both in the ftomach and œfophagus, in fo much that nothing but the coldeft liquids were grateful to him, and water more fo than any thing elfe; his fufferings both in body and mind were very great, but more from the conftancy of his pain, than from the acutenefs of it, the feat of which he always defcribed as being in the region of the ftomach. After a
few days paffed in this manner, convulfive affections of the mufcles came on in various parts of the body, particularly in the face, which gradually increafed to a confiderable degree of violence; and at intervals he was very delirious. His tongue was generally dry, and of a reddifh brown hue, giving reafon to expect an aphthous eruption. His pulfe was regular, firm, and very little quicker than the natural ftate, until within three days of his death, when it fuddenly became very frequent, and proportionably weak ; and thus it continued to the laft. From the Wednefday night previous to his death, he lay in a ferted fate of comatofe infenfibility, till Thurfday at noon, and either in this fate or in convulfions, he remained with a few fhort intervals of recollection until his death, which took place early in the afternoon of Saturday 20th Dec. 1800.

During the two laft weeks of his life, he had the beft medical advice. Emetics, laxatives, neutral falts, fedatives, veficatories, fomentations and poultices were adminiftered, but without producing more than a temporary alleviation of fymptoms. Nourifhment he fometimes took with much eagernefs, but at
other
other times, either from inability or difinclination to fwallow, he refolutely refufed it. There was no material obftruction to the paffage of fæces.

His body was opened about fifty hours after death. The ftomach, liver, gall bladder, and fileen were perfectly found and free from difeafe, as were the duodenum, jejunum, and upper part of the ilcum, as alfo the larger inteftines; but in the lower part of the ileum, immediately above its junction with the cocum, for about the fpace of eighteen inches, there was found fufficient caufe to account for this train of fymptoms.

The external appearance of it was fuch as to give ftrong indications of great internal mifchief; feveral indurations might be felt through the coats of the gut, which was contracted and livid, but not perforated. Upon opening the difeafed part, it was found internally ftudded, through its whole extent, with ulcers of various fizes from that of a bean to above that of a half crown piece; circumfcribed, but very rugged from a great quantity of fungous fubftance thrown out both upon their furfaces and edges, from all which circumftances it was impoffible not to conjecture them to have been of a carcinomatous nature.

The hiftory now recited affords two practical remarks. The one is, that difeafes of the abdominal vifcera can be but very imperfectly underfood from the defcription given by the patient of the feat of the pain, which was here uniformly ftated to be in the vicinity of the ftomach, though it will fufficiently appear from what has been already faid, that this organ could not be primarily affected, but only fecondarily from fympathy with more diftant parts.

The fecond remark is, that when thofe fymptoms of vifceral difeafe, which are ufually denominated dyfpeptic, continue for any confiderable length of time, efpecially if they do not readily give way to the ufual tonic and corroborating plan of treatment, it may be fairly inferred, that they are not the confequences of mere debility or irritability, but depend upon fome more fixed and local orgamic affection, and therefore neceffarily afford a more uncertain and unfavourable prognofis.

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It muft be fufficiently obvious from the condition of the parts as difcovered by diffection, that $n$ the latter fage of the difeafe, (in whicn only medical affiftance was applied for, ) no human means, in the prefent fate of knowledge, could have afforded a rational profpect of cure: how far the progrefs of the malady could have been arrefted by a more early application of remedies, it is impoffible to fay ; it is highly probable that its foundation was laid in the hardhips which the patient underwent while a prifoner in France, more particularly when it is confidered that, for a confiderable part of that time, thefe hardhips were aggravated by fo formidable a difeafe as the dyfentery.

I believe it will not be denied, that the appearances after death were fuch as are not frequently to be met with. I have examined feveral anatomical authors, but have \{carcely been able to difcover a fimilar inftance. Dr. Baillie, fpeaking of a fchirrous fate of the ftomach, approaches perhaps the neareft to it of any *, he obferves " that it very frequently happens, that this thickened mals is ulcerated

[^9]upon its furface, and then a fomach is faid to be cancerous; fometimes the inner membrane of the ftomach throws out a procefs, which terminates in a great many fmaller proceffes, and produces what is commonly called a fungous appearance;" and he afterwards defcribes nearly the fame circumftances when fpeaking of fimilar difeafes in the inteftinal canal *. Lieutaud informs us that in the diffection of a man fixty years of age, carried off by dyfentery, he difcovered the internal furface of the colon and rectum ulcerated, fchirrous and callous.

The defcriptions given by Sir John Pringle, Dr. Cleghorn, and others, of diffections after fatal dyfenteries, have but a diftant refemblance to the cafe in queftion, and indeed the morbid appearances in thofe are more ufually confined to the rectum and larger inteftines.

If any thing is to be attempted toward preventing the occurrence of fo alarming a train of fymptoms, as have been here defcribed, it muft be by checking the progrefs of the difeafe in its early ftage, at which period due difcrimination unfortunately appears fo diffi-

* Lieutaud Hilt. Anatomico-Medica, Lib, I. Obr. 359 .

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cult, as to be almoft impracticable. The following plan of treatment I fhould confider as affording the moft rational profpect of fuccefs - frequent local bleedings by leeches or fcaxification, repeated at due intervals, interpofing fomentations, and veficatories, applied to fuch part of the abdominal region as appears moft likely to be the feat of the difeafe ; and, as internal remedies, mercurials in fmall dofes, with cicuta; keeping the body foluble with ol. ricini, manna, or fome other gentle laxative. As the effect of the remedies muft neceffarily be flow, and not fufficiently obvious to be eafily afcertained, they fhould be patiently perfifted in, both externally and internally, for a confiderable length of time, encreafing the quantity of cicuta as far as the fyftem will admit. The diet fhould be light and of eafy digeftion, confifting of milk and farinaceous vegetables, with a moderate proportion of animal food, and a total abftinence from firituous liquors.

## ARTICLE XV.

Hijory of a peculiar Morbid Appearance of the Heart.

By james hume spry, Member of the Royal College of Surgeons, \&c. F.M.S.

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\text { Read, Feb. I, } 1802 .
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The fubject of the prefent diffection, was the body of a young woman feventeen years of age; fhe was greatly emaciated, and of a very dark, fwarthy, or livid colour. The fuperior and inferior extremities, and particularly, the fingers and toes, partook moft of this livid appearance ; in the latter, it approached nearly to black.

From every part which was wounded by the fcalpel, a very dark coloured blood was difcharged, and it feemed to me that the venous fyftem was preternaturally loaded with blood.

In the cavity of the thorax, the firft morbid appearance which was obferved, was a
very firm adhefion of the pericardium, to the pleura coftalis. The pericardium when opened, was not found to contain any fluid; but the heart was remarkable, both for its great fize, and weight; -to the touch, it felt extremely hard; and refifted the preffure of the hand, as if it was much diftended by fome elaftic body.-The hardnefs, and diftenfion of the heart, was found to proceed from an enormous quantity of blood, in a diffolved ftate, of a very deep purple colour, which diftended equally both auricies, with their correfponding ventricles. The great arteries and veins likewife partook of this diftenfion.

When the heart was carefully examined, a material defect in its organization was difcovered. - The foramen ovale which is always neceffary to the œconomy of the fotus before it has refpired, after birth becomes of no ufe, and foon clofes; which event feems to be of the greateft importance to our welldoing: fo that, what is perfectly natural, and indeed abfolutely neceffary to our exiftence while in utero, after birth, fo far from being of ufe, is abfolutely pernicious; and if it fhould perchance remain pervious, muft even-
tually be attended with fatal confequences.In the cale of this young woman the foramen ovale was pervious, and very nearly two inches in circumference: thus the heart was incapable of performing ite functions, as it ought to do in the adult; and therefore, the blood, inftead of paffing from the right auricle into its correfponding ventricle, and from thence, through the pulmonary artery and lungs, found a more ready paffage through the large foramen ovale, into the left auricle : part, however, muft have entered the right ventricle, and afterwards have paffed into the pulmonary artery. But here again was another impediment to its paffage through the lungs. Notwithetanding the natural aperture in the foetal heart, between the right and left auricles, through which the greateft part of the blood paffes, without flowing into the right ventricle; nature has provided a fecond, to carry off the fmall portion of blood, which will unavoidably flow into the right ventricle and pulmonary artery. This fecond provilion of nature is the canalis arteriofus, forming a direct paffage between the arteria pulmonalis, and aorta. This fecond paffage, after birth, clofes, as well as the foramen ovale:
but nature had fo far departed from her ufual track, as to fuffer it to remain pervious in this young woman; hence it will appear, that with two fuch impediments to the circulation of the blood through the lungs, it was utterly impoffible for it to be expofed fo compleatly to the action of the atmofpheric air, as to render it fufficiently pure for the common purpofe of life, as ordained by the Supreme Being. - When we confider that the heart of this fubject, was fimilar in every refpect to that of a fœtus in utero; and likewife the confequences which will moft probably refult from a circulation carried on in an adult fyftem, through the medium of fuch a heart ; we fhall not be furprized at the blue colour of her fkin which during life was to remarkable as to attract the attention of the byftand-ers.-The next difeafed appearance in the leart, was an unufual white colour of its inner membrane, which feemed to be fome what thicker than is commonly the cafe: this circumftance made the columnæ carneæ appear larger than they ought naturally to be. The lungs, upon a minute examination, were found free from any vifible difeafe whatever. I was led to make a particular examination of
the lungs, on the following account.-Where the lungs have been much obftructed, as in fome confumptive patients, the foramen ovale has been found pervious: and a very refpectable gentleman (Mr. Abernethy) has feen this feveral times; the fame gentleman has likewife obferved the foramina Thebefii open from a fimilar caufe. As the lungs of this woman were vifibly free from any difeafe, it is not probable that the appearance of the heart depended upon obftructed, or otherwife difeafed lungs, but was rather a primary diforder, and moft probably it had never fuffered any change fince birth. It is a very extraordinary circumftance, that the fhould have attained the age of feventeen years, with a heart fo ill calculated to perform the functions requifite in the body of an adult: but fhe may be faid to have only exifted; for health, which is abfolutely neceflary to our enjoying the comforts of this life, fhe knew only by name. In the cavity of the abdomen, the liver was the only difeafed vifcus. Its fize was remarkable, as it occupied nearly the whole of the right hypochondrium, and it extended over to the left, fo as to occupy completely the epigaftric, as well as the fupe-
rior portion of the umbilical region. The texture of the liver was firm, and its colour natural. Upon the concave furface there was a large tumor, which at firft fight feemed to contain matter or pus; however, this did not prove to be the cafe, but in the centre of the tumor was fituated a tubercle of confiderable magnitude: no other morbid part was obferved.

It now only remains for the to give fome account of the different fymptoms, which this unfortunate female laboured under, previous to her diffolution. But the inveltigation, as I did not attend her, and as no journal was kept of her cafe by thofe who did, has been attended with confiderable difficulty. From her parents I obtained the following account: She had arrived at the age of fevenicen years, without ever having mentruated, excepting once, a fhort period before her death. She was always from her birth remarkably dark coloured, which gradually increafed as fhe advanced to riper years. The colour of her face was fo remarkable, as to make the people who looked at her, notice it : and a girl informed me, when I was inquiring about her; that, " fhe always had a biue face," and likewife, " that continually a very acute, throbbing pain in her head; but confined principally to her forehead and temples. She always felt a great pain, and fenfe of weight in her left fide, attended with conftant palpitations of the heart. Refpiration was performed with diffculty, and the had fometimes a very flight cough. Indolence was naturally to be expected, and fhe poffeffed it in an eminent degree. Upon any unufual exertion the was in danger of fainting, and it was with confiderable difficulty that fhe got up ftairs. Her appetite was in general voracious. The flate of her pulfe was not to be afcertained. It may not be amifs to mention, that fome years ago fhe took the fmall-pox in the natural way, and fhe had the difeafe fo very feverely, as to have been in the moft imminent danger.

The celebrated cafe of the blue boy, publifhed by Dr. Sandefort, profeffor of anatomy at Leyden, has by many been confidered as unique; the cafe which I have related above, certainly correfponds with it in many refpects. In order to draw the comparifon, I have extracted fuch portion of the hiftory, as well as diffection, from Dr. Beddoes's obfer-
vations on fcurvy, as is neceffary for the purpofe.

The fymptoms appear to have varied very much at different times, but fome were conftantly obferved; therefore, I have felected thofe only. Thofe who wifh to be acquainted with all the different fymptoms may be indulged in their wifh by referring to the work above mentioned.

The fymptoms conftantly obferved were,
ift. Great dyfpnca upon motion ; vifible pulfations in the neck.

2d. A face too full for the habit of the reft of the body; during his laborious refpiration a livid colour of the countenance, a protuberance, and occafional fuffufion of the eyes.

3d. Urine high coloured without fediment.
$4^{\text {th. }}$. Great coftivenefs.
5th. Conftant chillinefs, cven though the $f$ in felt warm; this fenfation never leit him, except after he had become quice warm in bed. In winter, though fitting clofe by the fire, he complained of fhivering, and in fummer he longed for a large kitchen fire, and defired to bafk in the fun during the hottent part of the day.

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Gth. He was fometimes much relieved by opening medicines and by hæmorrhages from the nofe, which happened from time to time.

The tongue was very foul; the breath extremely offenfive (foetidiffimus).

Dr. Sandefort gives the following account of the diffection. The thorax alone was opened.
" The pericardium did not, as ufual, appear furrounded by the lungs, and almoft inclofed in them; but a mafs was feen to fill nearly the whole cavity, and to comprefs the lungs extremely: this mafs was the pericardium, containing the heart in a flate of great diftention, and very full of blood. It reached from the diaphragm (which on the right fide rofe to the fifth, on the left only to the fixth rib) to the fpace between the firft and fecond rib, and fo entirely filled the lateral parts of the thorax, that only the anterior portion of the lungs on the right fide (viz. the margin of the fuperior and middle lobe), and but a very fmall portion on the left (viz. towards the upper and lateral part) could be feen.Above the pericardium, the fuperior cava, with the origin of the fubclavian veins, appeared turgid with black blood.
Vol. VI.
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"Upon opening the pericardium, fome water ran out; but not more, indeed not fo much, as is fometimes found in fubjects where no dropfical fymptoms have preceded death.
" The heart, when freed from its fac, appeared exceffively turgid, not howover equably $f_{0}$; both the ventricles were not diftended to the fame degrec; the right ventricle, as well as its auricle and finus, were much more enlarged, and full of blood than the left; all the veins, which ramify from the coronary veins along the furface of the heart, were fo dilated, even to their extreme branches, that the mult fuccefsful injection could not have rendered them more diftinct.
"The veins arifing from the fubclavian, more efpecially the jugular, were enormoufly diftended with thin black blood; the fuperior vena cava, where it is lodred within the pericardium, did not much exceed its natural fize; the inferior cava was enlarged ; the pulmonary veins were turgid, but not exceedingly fo; the aorta was enlarged at its origin ; the pulmonary artery was remarkably contracted, from 'its origin almof to its bifurcation ; of the arterious duct, or rather ligament, as it
would have been at this age, there was no veftige.
" The lungs, externally, had no morbid appearance, but they were fmall, compreffed, and not eafily dilatable ; whence it appeared that they could not properly have performed their functions.
"The external appearance of the heart fhewed where the fource of the mifchief lay. After tying up all the veffels, it was fubmitted to further examination.
" The right finus and auricle were firft opened ; a large quantity of thin black blood flowed out. In the foramen ovale there was an aperture, which would admit a large probe.
" On introducing the finger into the right ventricle, and turning the point toward the orifice of the pulmonary artery, where it ufually arifes from this ventricle, no fuch orifice could be felt, but it eafily flided into another, and that a very large one. But how great was my aftonifhment, and that of all the byeftanders, when it was difcovered, that the finger had paffed into the aorta, which, according to the ordinary law of nature, has

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no communication whatever with the right ventricle.
"This ventricle was divided in the place oppofite to the valve, behind which the arterious orifice lies, quite down to the apex. Upon lifting this valve a little, the large mouth of the aorta appeared, as alfo a fmooth margin, beyond which the finger found a way into the left ventricle of the heart. Upon cutting the aorta tranfverfely, at a proper diftance from the femi-lunar valves, the fame margin was feen to divide its orifice into two parts; the larger communicating with the right, the fmaller with the left ventricle.
"The aorta therefore arofe from both ventricles, and muft have received all the blood from both.
" The pulmonary artery having been cut acrofs above the valves, thefc alpeared very frmall, alnoit grown to the artery, and covered with a granular fubitance, refembling a flethy excrefience, fo that ouly at ea enough was eft to iufier a fmall probe to pat's into the ventricle, and even this paffed with greater difficulty from the ventrick into the artery. Upon opening the orifice lougiudinally, we found
found only two Chapelefs valves, partly covered with the fame granular excrefcence.
" In the mouth of the aorta there were three valves; in the left ventricle there was nothing remarkable, except the aperture in the feptum, and the thinnefs of its fubftance, which did not exceed, and indeed fcarce equalled, that of the right ventricle."

Although in fome refpects the appearances upon diffection were different in the two cafes, yet in many other refpects, they correfponded one with the other ; and the effects produced by this mal-formation of the heart would be perfectly fimilar in both.-The circulation of the blood in both cafes would be nearly the fame-the larger portion of blood in Dr. Sandefort's cafe paffed from the right auricle into the right ventricle, inftead of paffing into the pulmonary artery; it then paffed immediately into the aorta; confequently, it never entered the lungs. A fmaller portion would likewife pafs through the foramen ovale, which in this cafe, though pervious, was very fmall.-In the other cafe a greater portion of the blood would pafs into the left auricle through the foramen ovale, which was very

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large; and a fmaller from the pulmonary artery into the canalis arteriofus, and aorta. In both cafes the blood would never be fufficiently expofed to the action of the air of the atmofphere to render it fit for the common purpofes of life.
ARTICLE XVI.

A Gafe of a Wound in the Peroneal Artery, in which the Limb was faved by removing a Portion of the Fibula.

By THOMAS CroxalL CaM, Surgeon, Bath, Late Senior Surgeon to the Infirmary at Hereford.
[Communicated by Dr. FOTHERGILL.]

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\text { Read, Feb. 8, } 1802 .
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John Prefece, about eighteen years of age, had the misfortune to have the peroneal artery wounded by the point of a fcythe in the hay harveft, paffing between the tibia and fibula, about three inches above the outfide ancle. The hæmorrhage was very profufe at the time of the accident, which was itopped by a neighbouring furgeon with compreffes of lint, and a tight bandage. As foon as the compreffes and bandage became flack, the hæmorrhage returned. The young man being

L 4 much
much reduced by the lofs of blood, his friends defired I might be confulted. I accordingly met his furgeon on the feventh day. As every thing remained quiet at that time, it was agreed that he fhould be moved to the Hereford Infirmary, as he lived at too great a diftance to be attended in fuch a manner as the nature of the cafe required. Nothing happened till the fifth day of his admiffion, when the hæmorrhage returned, and notwithftanding the tourniquet was conftantly applied, he loft more blood than might have been expected. On removing the dreffings, and loofening the tourniquet, in order to difcover the wounded veffel, the blood fo immediately filled up the fpace between the tibia and fibula, which in that part of the leg lie near each other, that it was impoffible to ufe the needle and ligature, or apply any ftyptic. Under fuch circumftances, and in fuch cafes, where a wounded veffel in the extremities cannot be fecured, recourfe is had to amputation. But recolleating a note in Mr. Gooch's fecond volume of Cafes and Remarks in Surgery, page 347 , where on being confulted in a cafe of hæmorrhage after amputation, he fays,
" among
" among the reft of our chirurgical converfation at this meeting, mention was made of an accident in which one of the arteries, between the tibia and fibula was opened about the middle of the leg, and the bleeding fropped from time to time by various methods, but at laft it was thought advifeable to amputate the limb. Upon reffection, it occurred to me that in this cafe, the removal of about two or three inches of the fibula was practicable, and probably it might have given a fair opportunity of faving the limb." From this hint I was determined, as there was no time to lofe, to try the experiment. I laid the fibula bare, and after paffing a fpatula underneath the bone, fawed off about two inches. On wiping away the blood, and loofening the tourniquet, the bleeding veffel was foon difcovered, and eafily taken up. The portion of the fibula that was removed had received a confiderable injury from the edge of the fcythe. There was not any return of hamorrhage after the operation. The young man's Areugth was foon recruited by the bark, elixir of vitriol, and a milk dietThe lofs of bone was fupplied by an inter-
vening callus, and the cure perfectly completed in two months. He is now able to carry heavy burdens, to follow his hurbandry bufinefs, and the limb is in every refpect, as ftrong and as ufeful as the other. I need not add, how much it is the duty of every furgeon, to ufe his utmoft endeavours, on all occafions, to fave a limb. In the fuccefsful event of this cafe, I claim no other merit, than by putting into execution the hint given by that excellent and ingenious furgeon, the late Mr. Gooch of Halefworth in Norfolk.

Bath, June gth, 1801.
ARTICLE XVII.

Obfervations on the Medical UJe of the white Oxyd of Bifmuto.

By ALEX. MARCET, M.D. \&c. Sec. M.S.
One of the Phyficians to Guy's Horpital.
Read, April 12, 1801.
The powerful effects of moft of the metallic oxyds on the animal œconomy, and the fuccefs with which fome new remedies of this clafs have, of late years, been introduced into medical practice, will, I hope, be deemed a fufficient apology for offering to this Society a few obfervations upon one of thefe fubftances, the medical properties of which are yet but little known, and have never, I believe, been fubmitted, in this country, to any regular inveftigation.

The fubftance to which I allude is the white oxyd of Bifmuth, commonly known by the name of Magiftery of Bifmuth; and fold chiefly by perfumers as a paint for whitening
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the complexion. Being at Geneva about twelve months ago, I heard that this fubftance had for many years paft been brought into medical ufe by Dr. Odier profeffor of phyfick in that town, and employed there with confiderable fuccefs, not only by him, but alfo by feveral of his colleagues in the treatment of a few fpafmodic diforders, and more efpecially in the cure of a particular fymptom of dyfpepfia. I had then an opportunity of hearing from Dr. Odier himfelf the account of his obfervations on this medicine, and at my requeft, he was fo obliging as to draw up the following concife but very conclufive note, which, for the fake of bevity, I fhall tranfcribe in his own words.
"The magiftery of bifmuth is prepared by diffolving a quantity of very pure bifmuth in nitric acid, and precipitating it by water, or by a folution of potafh. But if the bifmuth is not very pure, if for inftance it is mixed with nickel, the precipitate is not perfectly white ; it is then mixed with a greenifh precipitate, which is nothing but an oxyd of nickel which water will not precipitate; for which reafon we are more certain of obtain-
ing a pure precipitate of bifmuth by water than by potafh.
"I ufe this" remedy with fuccefs in dofes of fix grains, four times a day, in all cafes of fpafms of the ftomach, brought on by any kind of aliment, and proceeding only from the irritability of that organ. This complaint is extremely frequent at Geneva, particularly amongt fervant maids who are in the habit of carrying water on their heads, and make great ufe of their arms.
" I have publifned my obfervations on this fubject in two papers, one of which has been printed in the "Journal de Medicine," and in the "Journal Encyclopedique" of Paris for the year 1796 ; and the other, fent by Dr. Belcombe to the Royal Society of Gottingen, has been printed in a German journal from whence Dr. Murray has drawn, in his "Apparatus Medicaminum" a very detailed extract."

Dr. Odier, in addition to this account, affured me repeatedly that he had tried the oxyd of bifmuth in much larger dofes, and that he had never obferved it to produce any bad effects whatever; whilft on the contrary, he had hardly ever known it to fail in effect-
ing a cure, when ufed in the circumfances that have juft been mentioned.

The magiftery of bilinuth, it is proper to obferve, had been at different times tried by a few foreign practiioners before Dr. Odier afcertained what may be confidered as its fpecific effects; but they ufed it fo fparingly, and under fuch prejadices arifing from the notions they had formed refpecting its deleterious effects, that, until Dr. Odier's more decifive experiments, nothing but doubts and diftuft had arifen from thofe imperfect trials. As I mean to nffer to the Society a few cafes that have lately come under my own obfervation, I fhall not prolong this paper by a repetition of the obfervations publifhed in different foreign journals, by the ingenious profeffor of Geneva, who has himfelf pointed out, in the note that has juit been read, the chief references upon this fubject. But as I believe the concife and difinct account of this medicine given in Murray's "Apparatus Medicaminum *," referred to by Dr. Odier, will be found more acceptable than any hiftory or comment which I Goould be able to offer, I fhall not

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\text { * Vol. vi. p. } 252 .
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ferurle
fcruple to tranfcribe here the quotation at full length.
" Ab ufu interno magifterii bifmuthi præcordiorum ingentes furrexiffe anxietates memoravit jam Pott Berolinis anno 1739; infauto hoc effectu non deterriti, aufi tamen funt medici, intus idern præecribere; contra morbos a nimiâ nervorum fenfibilitate proficifcentes, potens in en multoties deprehendit auxilium Odier ${ }^{*}$, in velatriculi potiffimum \& partium cum eo maxime connexarum morbis, iis procipue qui a nimiâ fibrarum ejus carnofarum irritabilitate pendent $\dagger$, etiam fymptomatibus hyftericis, colicâ, alvi fluxu, cordis palpitatione, doloribus capitis, ftipatis, \& maxime in gaftrodyniâ ; in hoc etiam morbo perinde ac in debilitate ventriculi in fpafinos proni, \& in ipfo malo hyfterico efficax expertus eft Carminati $\ddagger$; in doloribus ventriculi chronicis §; dolorum, quos fchirrus pyiorum obfidens excitayerat atrociffimorum infigne crebro ab ejus ufu lenimen comperit

[^10]Odier ;

Odier ; in epilepfiâ tamen, aut convulfionibus folum nihil effecit, neque femper in ventriculi morbis cum vifcerum tabe notabili aut aliis malis complicatis cum fructuadhibitum : ejus ufu alvus alias obftipatur, alias jufto magis relaxatur."

I fhall now proceed to give a fummary account of the few cafes in which I have tried this medicine, and I fhall make a point of mentioning, candidly and without any referve, thore inftances, in which the remedy that I am recommending to notice, has proved ineffectual ; a method which I confefs I fhould wifh to fee more generally adopted.

## CASE I.

On the I $3^{\text {th }}$ of July laft, Hannah Stillwell of llford in Effex, a married woman, thirtyeight years of age, whofe employment confifts chiefly in needle work, fpinning and other fedentary occupations, applied to the City Difpenfary for relief. She complained of a grawing pain and great finking at the pit of her ftomach, which came on almoft inftantaneoufly after taking any food or drink, and was foon followed by ficknefs and vomiting.

She could only retard this for a few minutes by lying in a horizontal pofture. In fhort, it appeared from her account, that only an extremely fmall portion of the nourifhment which fhe took could be tranfmitted to the alimentary canal. Soon after vomiting, however, the again felt an inclination to eat. Her complaint had begun two months ago, and had continued ever fince. She faid the was a good deal reduced by it, and feemed extremely defponding; yet fhe was by no means remarkably emaciated. She complained of being generally very coftive. Her catamenia and other functions were regular. A dofe of caftor oil was ordered to be taken directly, and a bitter infufion, in the dofe of one ounce, three times a-day.

On the 2 ift the fymptoms being exactly the fame, the caftor oil was repeated, and a mixture of magnefia, rhubarb and peppermintwater, was fubftituted for the bitter infufion. I did not haften to try any of the metallic medicines, becaufe I conceived her complaint to depend, either upon fome organic difeafe within her ftomach, or upon fome fpafmodic affection of that organ ; and I did not imagine,

Vol. VI.
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that, on the former fuppofition, any of the metallic medicines could be of material fervice ; whilf, on the latter, I wifhed firft to give a fair trial to the bifmuth, a fupply of which I expected to be able to procure in a few days.

On the 30 th, the fymptoms continued as before, but the faid the mixture gave her a momentary eafe, and could fit on her ftomach longer than any thing elfe. The fame medicine was ordered to be repeated, and fome of the pilula aloes cum myrrba were directed to be taken occafionally.

On the 2 d of Auguft, there was little or no change in the fymptoms. Some drops, confifting of æther, tincture of bark and vitriolic acid, were added to the former medicines.

On the $x$ th, the complained of not deriving any fenfible benefit from her medicines; fhe then looked thinner than when I had feen her firf, but not fo much as might have been expected from the nature of her complaint : yet her general character and appearance, and ftill more fo, her perfeverance, and the regularity with which the came for advice, at ftated periods, from a great diftance,
diftance, did not permit me to fufpect any deceit or mifreprefentation in the account which fhe gave of her complaint. On that day, I ordered five grains of the oxyd of bifmuth, with fifteen grains of the pulv. tragacanth. compof. to be taken three times a-day.

On the 24 th fhe came to me with an uncommonly animated countenance, faying fhe was almoft quite well ; but fhe begged I would let her have fome more of thofe powders that had produced fuch remarkably good effects; to which requeft I moft readily confented.

On the 3 Ift the faid the was quite free from complaint, but ftill requefted I would allow her to take the powders a few days longer, as fhe was afraid of a relapfe if the fhould leave them off all at once. She accordingly continued to take two of thefe powders a-day, for about a week longer; when finding herfelf perfectly free from complaint, fhe difcontinued all kinds of medicines.

Since that time I did not hear any more of this woman, until about the middle of November laft, when the called upon me, not to complain of a relapfe, as I firft apprehended, but to thank me again for the bleffing M 2 of
of health to which fhe had been fo happily reftored. She faid, however, that although fhe was in general quite free from her complaint, yet if any thing fretted ber, and particularly if her children gave her any uneafinefs, fhe felt, occafionally, fome flight fenfation of it.

## CASE II.

Mary Wootfild, a girl feventeen years of age, prefented herfelf to the difpenfary for relief, on the 3oth of July. She laboured under a chlorofis, the moft diftreffing fymptom of which was a violent pain in the region of her ftomach. Some pillula aloes cum myrrba were ordered with a bitter infufion.

On the 3 d of Auguft, there being no favourable change whatever, fome pills of vitriolated iron, with extract of gentian, were added to the former medicines.

On the 7 th, the fymptoms of gaftrodynia being rather increafed, 20 grains of the mixed powder of bifmuth and tragacanth, (which I fhall now call compound powder of bifmuth, were, as in the former cafe, ordered to be taken three times a-day; and the was directed to leave off all other medicipes.

On the roth, fhe was a good deal better, though not quite free from uneafinefs in her ftomach. The fame powders were increafed to the dofe of half a drachm, three times a day.

On the 13 th, fhe had fill fome remains of pain in her ftomach, and complained of fome other dyfpeptic fymptoms. The bifinuth was continued, and a bitter infufion, with a few drops of aqua ammoniæ, were directed to be taken, twice a-day.

On the 17 th, fhe was a great deal better, and the dofe of the powders was reduced to 20 grains, three times a-day.

On the 20 th, fhe was very nearly free from complaint, and the powders, and bitter infufion, were ordered to be continued.

On the 3 Ift, the was quite free from complaint, and difcontinued taking any medicines.

## CASE III.

Catherine Goffee, a woman twenty-two years of age, was admitted as a patient to the difpenfary for a very fevere pain in the pit of her ftomach. This pain was conftant, although not uniform, in violence. She had no fever nor cough, but her face was fomewhat flufhM 3 ed.
ed. Her catamenia and other functions were regular ; her tongue was clean, and her general health appeared very little affected. The compound powder of bifmuth was ordered in dofes of 20 grains, three times a-day.

On the 2gth, fhe feemed nearly in the fame ftate, and thought the powder rather increafed the pain. She was, however, prevailed upon to take fix more of them ; but at the fame time fhe was directed to take fome drops of $x$ ther, and fpiritus ammoniæ fortidus, when the pain fhould prove particularly troublefome.

On the 2d of November, her complaint was not in the leaft abated; on the contrary her pulfe was a little feverifh, her fkin dry, and face flufhed. I then abandoned entirely my former plan; inftead of which I ordered a blifter to be applied to her cheft, with a fudorific medicine. About a week after this fhe returned thanks, being perfectly cured of her complaint.

## CASE IV.

On the 14th of Auguft, M. H. a fingle woman twenty years of age, became my pafient in the difpenfary. She laboured under
an extremely obfcure and complicated diforder, for which, I am forry to fay, fhe is fill under my care with very little hope of recovery *. I thall not at prefent trouble the Society with the particulars of this cafe, but fhall only mention that the leading fymptoms were, then, and are now fill, a conftant and moft agonizing pain in the pit of her ftomach and between her fhoulders, without any fever, cough, or other fymptoms of phthifis pulmonalis. After trying a great variety of medicines without effect, I ventured, on the $4^{\text {th }}$ of September, to give her the bifmuth in the ufual dofe of five grains of the oxyd, three times a-day. She took it for three days, without any relief whatever; after which I did not think proper to pulh this trial any farther. Since that time, fome flight and very tranfient fymptoms of droply have occafionally appeared, and fome vague fufpicion has been entertained of a difeafe in the liver. I have repeatedly requefted upon this cafe the advice of my much refpected colleague Dr. Walker,

* This patient recovered at laft, under a gentle, but long continued courfe of mercurial medicines.
and I may fay, there hardly remains now any important medicine that we have not tried, all of them without any fuccefs whatever. I mention thefe circumftances merely to fhew that the failure of bifmuth in this inftance can hardly be brought as an evidence againft its efficacy in fpafmodic affections of the ftomach.


## CASE V.

On the 8th of OCtober laft, Daniel Lee, a mafon, fifty years of age, applied to me for relief. He complained of being feized every day, about two o'clock after dinner, with a moft painful fenfation in his præcordia, attended with ficknefs, great giddinefs, but not vomiting. This lafted about four or five hours, after which it gradually fubfided. During the fit, he could hardly ftand, and was. obliged to leave off his work. He was very thin and pale, and looked a great deal older than he faid he was. He had been fubject, more or lefs, to this complaint for fome years paft, but for the fix preceding weeks, it had been more conftant and more fevere than ever before. He feemed to enjoy tolerably good health in other refpects. He had applied repeatedly for medical advice, and after taking
a variety of medicines had been told, that nothing but time and nature could cure his complaint. I directed him to take 20 grains of the compound powder of bifmuth, three times a day.

On the IIth, he had taken fix powders, and the violence of the fits was already abated.

On the i4th, he had taken twelve powders, and the fits were much lefs fevere, and returned only every other day.

In a few days after this, after having taken in all, about two dozen of the powders, he returned thanks being perfectly cured; and I have juft heard that he has continued, to this day, entirely free from complaint.

## CASE VI.

A fervant maid in my family, twenty-three years of age, who had, for fome time paft, laboured under amenorrhæa, was fubject, amongf other unpleafant fymptoms, to a violent pain in her ftomach, which feized her every morning about eleven o'clock, and fometimes continued in the afternoon; but in general, it was confiderably relieved by taking fome food. She had taken large quantities
of ferrum vitriolatum, and other tonics, without any relief of this fymptom; when, on the Sth of November, I directed 20 grains of the compound powder of bifmuth to be taken, three times a-day. On the fecond day after this, fhe had but a very flight return of the pain, and on the third, the was totally free from it. A week after this the catamenia returned, and fhe has been free from complaint ever fince.

If it be permitted to draw any inference from fo finall a number of trials, it would appear that the oxyd of bifmuth is a remarkably fuccefsful medicinc in fpafmodic affections of the fomach; for in four cafes out of fix, in which it was tried, a complete cure was almoft immediately obtained; and in the two inflances in which it has failed, the affection, which was at firft fufpected to depend upon a fpafm of the ftomach, has fince appeared to be of a complicated, and probably, of a very different nature. I hope that I fhall be able to lay before the Society the refults of further trials; but in the mean time I have thought it proper not to delay this communication, as it may be the means of increafing
the number of obfervations * : and although this medicine has not hitherto appeared to be of much fervice in other complaints, it ought not to be rejected without a fair trial, on account of its limited effects; efpecially as daily experience fhews that thofe medicines, which have been fo much extolled at firft for their univerfal virtues, generally prove in the end lefs ufeful than thofe which have firft attracted notice by their efficacy in relieving only fome particular fymptom.

Some, cautions (as Dr. Odier has pointed out in his note) are required for the accurate walhing and purifying of the white oxyd of bifmuth; and, fimple as it is, this preparation is: tedious, and requires confiderable attention. Meffrs. Allen and Howard, of Lombard ftreet, have been fo obliging as to prepare, at my requeft, a very pure fecimen of this me-
> * Since the above paper was read before the Society, I have had frequent opportunities, at Guy's Hofpital, of trying the oxyd of bifmuth in fpafmodic affections of the ftomach, and thofe trials have fully confirmed the opinion which I offered three years ago, on the utility of this medicine. It has alfo been tried by fome of my medical friends, and amongft others by Mr. Charles Aikin, who have formed a favourable opinion of its effects.

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dicine. In this fate, the oxyd of bifmuth appears in the form of an almoft impalpable powder, of a beautiful white colour. I generally mix it with fome of the pulvis tragacanth. comp., chiefly with a view to fufpend it in a watery vehicle; but magnefia and fugar, or any mucilage, would, I fuppofe, anfwer the fame purpofe; and the oxyd alone might probably with equal propriety be given in the form of pills. The impure oxyd of bifmuth being fold in the fhops under the name of Magiftery of Bifmuth, I fhould propofe to call that prepasation, which is to be ufed as a medicitre, Oxydum Bifmuthi album; or if it be thought too great an annovation to ufe a nomenclature which, although univerfally adopted in chemiftry, has not yet been generally adapted to pharmaceutical language, I fhould call it, according to the analogy of the London Pharmacopœia, Calx Bifmutbi alba.-The name, in this particular inftance, may be of fome importance, as the impure oxyd fold in the fhops for cofmetic purpofes, may often be mixed with nickel, cobalt, and perhaps alfo, with lead or other impurities. It has even been fufpected that common Magiftery
of Bifmuth rubbed on the fkin could injure the conftitution ; but it is a mere conjecture, and I believe the chief and real objection againft its external ufe, is that certain odorous fumes or gafes, and particularly the fulphurated hydrogen gas, turn it black or brown on the fkin itfelf.

In recommending this medicine to the attention of the Society, I fhould be forry if I was fuppofed to rely implicitly, either upon the trials made at Geneva, or upon thofe which I have made myfelf. I am perfectly aware that nothing but time, and a very general experience, ought to eftablifh the utility of any new medicine : but at the fame time the fear of innovation ought not to be carried too far, and I hope in this particular inftance, the fafety of former trials, and the previous approbation of a few refpectable practitioners, will appear fufficient grounds to intitle this medicine to a candid examination.
ARTICLE XVIII.

On the USe of the Bath Waters in Ifchias, or the dijeafes of the Hip-Goint, commonly called a Hip-Cafe.

By W. FALCONER, M.D. F.R.S. \&c.


Hipp. de Internis Affetionibus.

The complaint of the hip-joint, commonly called a hip-cafe, has (in modern times efpecially! been much overlooked in the enumeration of difeafes.

It has, under the appellation of fciatica, been confounded with rheumatifm and gout, and alfo with proadic abcefs; from all which it differs materially, both in its nature, feat, and method of cure.

I fhall endeavour, firft, to give fome account of the appearance of this complaint, and of its attendant fymptoms, and proceed to fpeak of its caufes, and the method of cure,
and conclude with fome remarks on what other writers have delivered on the fame fubject.

Few practitioners have feen this difeafe at its commencement. Its fymptoms are ufually inconfiderable and tranfient, fometimes difregarded, and at others confidered only as the confequence of fome cafual ftrain or over-exertion, or of too long continued exercife; and, if the perfon affected be in middle life, or farther advanced, it is miftaken for a gouty attack. It is certainly true, that all thefe caufes may produce fymptoms nearly refembling thofe hereafter defcribed, however different the nature of the feveral complaints may be.

In the fate wherein perfons labouring under this difeafe, come to Bath for relief, the feat of the pain is generally defcribed to be ${ }_{2}$ rather behind the great trochanter of the thigh bone, and nearly on the fame level. The perfons affected fpeak of it, as being, to their fenfations, deep-feated, but ftill capable of being aggravated by moderate preffure with the finger on the part where the pain is felt. No external forenefs of the fkin is obferved.

The glutæus magnus, and the vaftus externus mufcles generally appear wafted and flabby, and the external line of divifion between the glutæus and the biceps, and fernitendinofus feems in a good meafure obliterated, and filled up with a flabby protuberance, as if the glutæus magnus was let down, or fpread over the upper part of the mufcles which lie immediately below it. Notwithftanding this apparent enlargement, the circumference of the thigh is, in reality, diminifhed; which diminution in large fubjects, I have feen amount to three or four inches, when compared with the fide not affected

Sometimes the breadth of the nates on the difeafed fide, is much increafed, though its prominence and firmnefs are diminifhed; a man now * in the Bath hofpital, has the nates on the left fide, at leaft three inches wider than on the right. The head and neck of the thigh-bone itfelf may be difcerned, by feeling, to be much more prominent on the affected fide; and the joint fuffers, I believe, a partial diflocation.

* Auguft 27, 1801.

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The tubercle, or lower part of the ifchium, may, in many inftances, (but not always,) be difcovered, by feeling it behind, to be lower on the affected fide than on the other. A man now in the hofpital is a remarkable inftance of this difference between the height of the bones on each fide; and a pelvis of a perfon who died at the fame place, and was preferved there many years, fhewed it ftill more ftrongly. The leg on the fide affected is fometimes fhorter, though it is more frequently longer than on the other. Sometimes the difference is but little; but, I believe always perceivable. A man, now in the hofpital, has the left leg, which is the fide affected, at leaft two inches and a half longer than the right. It often happens that the leg, which had been at firft elongated, becomes, in the courfe of the difeafe, fhorter than the other; but I have feen unqueftionable inftances, in private practice, as well as in the hofpital, wherein the affected limb was fhortened, without any previous elongation. Motion of the limb is, I believe, always painful, although not in any violent degree, unlefs in the advanced ftages of the difeafe; but Vor. VI.

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I have obferved, in feveral inftances, that the patients could defcribe a circle with their toe, with as much eafe as they could advance the foot forwards.

In general, they find it difficult to extend the legs, fideways, far from each other, though fometimes the contrary is the cafe. It is, I believe, univerfally true, that they are unable to fupport any confiderable proportion of the weight of the body on the affected fide; or to ftand alternately on the legs, as is ufually done by perfons in health.

The pain is not confined to the fpot neareft to, or lying over the real feat of the difeafe; but feems to be propagated downwards, in the courfe of the vaftus externus, to the knee, and along the peroneus anticus to the outer ancle. Sometimes the pain of the knee has been fo violent as to caufe that joint to be miftaken for the feat of the malady, when the hip-joint only was affected *.

-     * There is a confiderable analogy between the effects of a carious or inffamed tooth, and thofe of a fimilar event taking place in the hip joint. The pain is, in both inftances, diffufed to a confiderable diftance from the feat of the difeafe; the tooth is raifed from the focket, analo

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It is not uncommon for the feat of the pain to be on the upper part of the pectineus mufcle *, near to the fpot where pfoadic abfcelfes often appear ; and, in fuch cafes, the pain defcends on the infide of the thigh, nearly in the direction of the adductores of the triceps, the vaftus internus, and in a ftraight direction from the knee downwards to the internal ancle.-In the general fate of the difeafe as above defcribed, I have moftly found the pulfe regular, and of the natural ftandard, in point of quicknefs, the fkin cool, and the evacuations as ufual in
analogous to the lengthening of the limb in hip-cafes; and when the pain and inflammation fubfide, the tooth finks lower into the focket than it was originally. This is analogous to the fhortening of the limb after a previous elongation. The thickening of the membrane lining the focket of the tooth, which is caufed by the inflammation, raifes the tooth upwards; and the walting or decay of the fame membrane afterwards, allows the tooth to fink deeper into the focket, than it did when in its natural fituation.

* In a cafe now in the hofpital, the pain began on the outer part of the hip, near the great trochanter, and almoft entirely removed from thence into the groin, where it remains at prefent.
health:
health; and indeed very little change in the general fyftem. But when the difeafe advances, and the part' affected becomes fore and tender to a Jight touch, and the pain grows acute, throbbing, and uninterrupted; when the fwelling increafes, and the fkin of the painci part changes to a red or pink colour, with an appearance of flight eryfipetalous inflammation, the pulfe then is accelerated confiderably, the face changes alternately from a lead-coloured palenefs to flufhing, and the contrary*; the flin is moftly covered with a clammy fweat, the tongue grows white, the flefh waftes, the ftrength declines, and the fituation of the fick perfon becomes, in a good meafure, fimilar to that of one in the advanced ftate of a pulmonary confumption. As the Bath waters are confeffedly prejudicial in every fituation accompanied with hectic fever, we feldom witnefs the laft fage of this difeafe, fuch perfons being ufually fent
* I have been informed by Mr. Phillot, furgeon to the hofpital, a gentleman whofe judgment, as well as long experience intitle his obfervations to the higheft regard, that he has remarked ftartings and catchings during neep to be, in this flage of the difeafe, fome of the moft certain figns of the formation of matter.
home as incapable of receiving benefit from this remedy. Sometimes indeed we have been neceffitated to retain fuch diftreffed objects, until the termination of their miferies; as when they have, through the indifcretion, ignorance, or unfeelingnels of thofe to whofe care they were intrufted, been fent hither in the laft ftage of the difeafe, and were too weak to be fent back. An abfcefs, in fuch perfons, has been ufually formed on the outfide of the thigh, near the feat of the pain ; and has either burft of itfelf, or been opened, and the patient either funk prefently under the excefs of the difcharge, or continued to linger fome time in the fame ftate with thofe who dic tabid, as it is called, from long continued, and exceffive fuppuratory evacuations. Every cafe however, where fuppuration takes place, does not prove fatal. Some efcape, and I have been informed, that they have principally been thofe, wherein the abfcefs has been fuffered to burft of itfelf, in preference to its being opened with the knife.

If the quantity of matter be not very large, and the hectic fever abates on the difcharge of it, there are hopes that attention and profeffional affiltance may prove fuccefsful.

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But the advice of an eminent furgeon *, when fpeaking of the empyema proadicum is here in a good meafure applicable, "that the " inftances of thofe who perfedly recover are " fo few, when compared with, thofe to whom " it proves fatal, that it will never be prudent "to make a favourable prognoftic."

In fuch cafes, where the patient efcapes with life, an anchylofis, or great rigidity of the joint, often, takes place, or at leaft a confiderable fhortening of the limb; which laft indeed, is often the confequence of the difeafe, under circumftances much more favourable.

Hectical fymptoms, though they cannot but fuggef a doubtful proguoftic of fuccefs, are not always indications of impending fuppuration. If proper management be ufed, and timely applications made, this difpofition may often be checked. Even when there are the ftrongeft reafons to believe that a fluid has been effufed into the fheaths of the mufcles, it has been found poffible to caufe it to be reabforbed, without coming to fuppuration, or without its being again depofited on fome other part, or producing any other bad con-

[^11]fequences.
fequences. But matter, when completely formed, is, I believe, never taken up again, without producing fome mifchievous effects.

Some writers fpeak of the fhortening of the limb as a mark of fuppuration being formed. A fudden change from elongation to abbreviation may perhaps indicate, or rather afford a prefumption of this kind. But this event will be manifefted by many other fymptoms at leaft equally decifive. The mere abbreviation of the limb often takes place early in the difeafe, and long before the commencement of the feverifh fymptoms; and may be fatisfactorily accounted for without fuppofing it to arife from the formation of matter.This difeafe is fometimes acute and rapid, in its progrefs, and at others flow and chronical. I have feveral times feen it come to an alarming height in a few weeks*, and in other inftances to continue feveral years without much perceptible abatement or aggravation.

In one perfon, two years elapfed after the beginning of the pain and lamenefs, before

* A man now in the horpital is an inftance of this,

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any perceptible alteration in the length of the limb took place. After that interval, the leg began to lengthen, and advanced fo as to be nearly three inches longer than the other; in which ftate it ftill continues, (Sept. 24, 1801, ) at the interval of full two years from the time it was firft obferved to become longer. During the above long period of the complaint he has fuffered no fymptoms of fever, nor manifefted any figns of fuppuration.

In cafes that terminate in death, anatomical examination obvioufly points our the nature of the difeafe. The head of the thighbone, and even the neck, is generally found carious; and the acetabulum, and fometimes part of the bones of the pelvis furrounding it, corroded, and fometimes in fuch a manner, as to open a paffage internally into the cavity of the pelvis. Matter is often found in the cotyloid cavity itfelf, and in fuch a quantity as could fcarcely be fuppofed to be lodged there; and it is faid, without any marks of inflammation in the parts about it. To thefe appearances however, I never have been an eye-witnefs.

The fymptoms that occur at the firft coming on of the difeafe, are fo inconfiderable, and their advance fo gradual, that it is difficult to recount them accurately A fenfe of wearinefs and weight on the affected fide are ufually mentioned as the firft marks of indifpofition. This is followed by pain *, !light at firft, but which increafes gradually. A difficulty of ftooping forward fucceeds, fo that the patients feel much uneafinefs when drawing on their ftockings, and are often obliged to put them on by bending the leg backwards, and placing the hand behind the body.

Stiffnefs of the joint, and an aggravation of the pain on motion, foon follow, and, in fome perfons, a difficulty of feparating the

[^12]legs fiderways; and in fome, though more rarely, an equal difficulty in bringing the legs together. In the former cafe, it has been found neceflary, at the hofpital, to provide cufhions, to prevent the knces gailing one another; and in the latter, a band or belt inclofing both the knees, to guard againft a ftrain, by too great a lateral feparation of the Jegs from one another.

It is perhaps, not difficult to account for feveral of the above, feemingly contradictory, fymptoms, without fuppofing any real difference in the nature of the difeare.

The thigh-bone fands in nearly the fame direction with the trunk of the body, only a little obliquely, in fuch a manner that the upper parts of the bones are at a greater diftance from each other than the lower. The neck of the thigh-bone is a protuberance, fituated rather interiorly at the upper end of the bone, inclining upward, and a little forward, and making an angle with a right line drawn through the center of the thigh-bone, of about 48 or 50 degrees, but in fome fubjects, the direction of the neck is almoft tranfverfe, or at right angles with the trunk of the pody.

The

The head of the bone contains about twothirds of a fphere, not indeed accurately fo, but fufficiently inclining to that figure to explain feveral circumftances that take place in this difeafe. The largeft part of the convexity of the head of the bone, lies in the back part of the acetabulum.

I have already obferved that a partial diflocation of the limb takes place, when it either fhortens or lengthens ; and I think it clear that this alteration of the length depends on the part of the head of the thigh-bone, or of the acetabulum which fhall be affected. We cannot doubt that the firft appearance of this difeafe is in form of inflammation of the part, which is the feat of the complaint. The pain, difficulty of motion, and in bad cafes, the fubfequent fuppuration, indicate this decifively. The effect of inflammation on the cartilage, or membrane covering the head of the joint, and on that lining the focket, is to thicken it in the parts fo affected. If then, the inflammation affects either the lower part of the head of the bone, or of the acetabulum, it will raife the head of the bone, and at the fame time partially diflocate it, and thereby fhorten the limb, and caufe a projection
jection of the head of the bone. If the cartilage, or periofteum, be thickened in the fuperior parts, it will thruft the head of the bone downwards, and lengthen the limb. If the difeafe be feated at the bottom, or the back part of the cotyloid cavity, or in the finovial glands, it will thruft the bone out wards, without much affecting its length. A man, now in the hofpital, has the nates on the left fide extended laterally nearly one-third farther than on the right, by the projection of the head of the thigh-bone. If the conftruction of the neck of the os femoris be to go off nearly at right angles to the trunk of the body, the apparent projection will be greater in proportion.

I obferved however, in the inftance above mentioned, that the glutæus mufcle was not let down, but preferved the ufual marks of feparation from the mufcles of the thigh.

It was noticed above, that the os ifchium, on the affected fide, was fometimes, but not always, lower than on the other.-I have feen this take place, both when the leg on the afficted fide was longer than the other, and allo when it was fhorter. It procceds, I think, from the pendulous fate of the affected limb, which,
which, whether it be lengthened or fhortened, cannot bear its part in the fupport of the body, but hangs a dead weight on the affected fide; and probably drags the parts, with which it is connected; downwards along with it.

When the feat of the pain is fituated in the groin, it is not eafy, at firft fight, to diftinguifh a hip-cafe from the beginning of a proadic abfcefs; and indeed fome cales of the latter kind have been fent to the Bath hofpital, fuppofing them to be hip-cafes. They may however I think be diftinguifhed, by obferving that the pain in the groin in pfoadic abfcefs, though it extends to the upper part of the thigh, and fometimes a confiderable way down it, does not hoot downwards to the knee, and from thence to the ancle as in hipcafes.

In pfoadic abfcefs, there is no actual abbreviation or elougation of the limb, though there is fometimes a contraction of the knee joints. - The thigh-bone does not project in pfoadic abfcefs, nor are the nates larger on the affected fide, nor is the glutæus let down over the mufcles below it.

## CAUSE.

As this difeafe is often owing to carelefse nefs, imprudence, or accident, fome account of the caufes that are moft liable to produce it, may not be without its ufe.

The permanent application of cold to the part is the moft common affignable caufe.

On this account, and indeed for other reafons, hip-cales are more frequent among the lower ranks, and among labouring people; though the higher ranks are by no means exempt.

I have known it originate from damp beds, from working in water, or indeed in wet grounds, or being much expofed to wet cafually, as among wafher-women and brewers' fervants, and others liable to have their clothes often wet.

But lying on the damp ground, efpecially when the body is heated, is the moft common, and, as I think, the moft powerful caufe.

Labourers in harveft are particularly liable to hazards of this kind from their lying down, and frequently fleeping, under trees, and on the damp ground, when the body is heated with labour, and exhaufted with fatigue. A
very confiderable portion of the perfons in the table fubjoined, owed their complaints to this dangerous indulgence, from which no caution, no intreaty, can divert them, though they are generally as fenfible of the danger, as thole who fuggeft the warning not to incur it. But a prefumptuous fpirit to fhew what they efteem a mark of courage, prompts them to incur hazard without any obligation of duty, when if any real demand for fuch a fervice had been made, they would have complained of being required to run fo great a rifk.

I was fome time in doubt if the exbalation from the moift earth might not tend to produce this difeafe by means of its fpecific qualities, independent of the fucceffive generation of cold which is produced by conftant evaporation. But I am inclined to think that it did not proceed from any fpecific quality of the moifture exhaled, but from the cold only; as I have feen the difeafe produced by fitting at an open window, where no exhalation of any kind could be fuppofed to have any effect.

Blows and falls are alfo accounted among the caufes of this difeafe; and it is certain that fuch accidents may, and often do produce it.

Over-exercife and ftrains have the fame effect. But none of thefe caufes make any alteration, as far as I know, in the nature of the complaint.

## METHOD OF CURE.

As thofe who refort to the Bath for relief in hip-cafes, do it with a view to the trial of a local remedy, our principal intention muft be, to put them into fuch a fituation as will enable them to receive fuch benefit, as the remedy is capable of affording.

It fhould be obferved that the external application of the waters, is alone employed, their qualities, internally taken, being too heating to be compatible with the purpofe aimed at.

As fever and inflammation are mof adverfe to the general intentions of cure, and to the ufe of this particular remedy, every precaution is taken to prevent, or to check them.

It fortunately happens that, in mof inftances, the pulfe is little, or not at all accelerated, though the pain and other fymptoms are very diftrefsful. Under fuch circumftances, after the exhibition of a gentle purgative, it is ufual to enter on a courfe of bath-
ing. If the patients be tolerably ftrong, and the fymptoms moderate, they are directed to bathe in the hot-bath, which is the one fpecially appropriated for the ufe of the hofpital patients, and is about 105 degrees of heat. The ufual time for continuing in the bath is from 15 to 25 minutes, and it is generally repeated twice or thrice a week. After a few times bathing, the dry-pump as it is quaintly called, or pumping the affected part without bathing, is advifed, and this is tried on the part affected, on thofe days when the patient does not bathe, Sundays excepted. From 50 to 200 ftrokes of the pump are ufually given, the latter of which numbers takes up about five minutes of time.

The firft good effects of this application are to abate the ftiffnefs and pain of the joint, and to afford a greater latitude and extent of motion. This is often perceived after ufing it three or four times. As the effects of the remedy proceed, the forenefs and fwelling diminifh, the nocturnal pain, which is often very diftreffing, abates, the power of fupporting the body on the lower limbs, on the affected fide, increafes, the legs, whether fhorter or longer, approach towards their proper diVol. Vi.
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menfions,
menfions, and the mufcles, that were let down and wafted, regain their natural fhape, firmnefs, and plumpnefs.

If the ufe of the waters fucceeds as favourably as is above defcribed, we feldom interfere farther, and have frequently the fatisfaction to fee a perfect cure performed by them, and fometimes in cafes which, at the commencement of the trial of the remedy, did not appear very promifing.

It happens, not unfrequently, that the waters will fhew their beneficial effects to a confiderable extent for fome time, and then the amendment feems to be at a ftand; but fill without any acceffion of new morbid fymptoms, or without any aggravation of the old. In fuch cafes we find it requifite to fufpend the ufe of the waters for fome time, and to apply a blifter upon the feat of the pain; after the healing of which, we often find the application of the waters may be repeated with advantage.--But the fate and condition of the patient does not always allow us to purfue fuch an eafy courfe of practice as is juft defcribed. It fometimes happens, that the irritability of the patient's nerves is fo much excited by the ufe of the bath, as to
render much caution neceffary in the trial, efpecially in females.-Sometimes it caufes violent perfpiration, and much referve is neceffary on that account. In inftances of the latter kind, unaccompanied with fever, a light infufion of the bark, with aromatics, is generally ferviceable.

But the tendency to fever is moft to be apprehended. If the fpot where the uneafinefs is felt, be externally fore, and tender to the touch, the fwelling and pain confiderable, and efpecially if the latter be much aggravated by flight motion, it is neceffary to be on our guard, even though no acceleration of pulfe has yet taken place. Cupping-glaffes with fcarification, and even fometimes without it; are applied in fuch cafes with advantage; or, if the fkin be too fore or tender to endure, without much pain, the fuction of a cupping-glafs, a large number of leeches, fometimes as many as fifteen, have been fubftituted in the place of the other, and repeatedly applied, and have proved of great fervice.

In aid of thefe applications faline cooling purgatives, and the common faline draught, with antimonials, are adminiftred with advantage.

For the relief of the pain, which often fubfifts without fever, or at leaft without any that is indicated, either by the tongue or the pulfe, we find it neceffary to employ opiates. I have generally ufed Dover's powder with this intention, in the quantity of, from five grains to a fcruple, once or twice in twentyfour hours, and commonly with good effect.

If thefe means prove effectual (as they often do) to procure the abatement of the fymptoms, the bath is cautioufly tried, the Crofs bath efpecially, which is cooler than the other, and that for a fhort time only, and directed to be conducted with as little fatigue and trouble to the patient as poffible. If this can be borne without aggravating any of the fymptoms, but rather with a foothing effect, it is direcled to be repeated, after an interval of three or four days, repeating the purgative above-mentioned, occalionally. When the bath can be borne with eafe, we recommend the ufe of the pump in the bath, in which the impetus of the water thrown on the part affected is lefs than in the dry pump *, as the fream

[^13]ftream is conducted to the part, beneath the furface of the water of the bath.

By thefe means, together with the affiftance of a blifter on the part, which I think fucceeds beft when the tendency to inflammation and fever has been fomewhat abated by evacuations, we often render the application of the waters fafe and effectual, in cafes that feemed at firft view not to allow their ufe. To reduce the fwelling, and to promote a reabforption of the effufed fluid, when that can be fafely done, (as I have found it fometimes
and convenience, the water to be thrown on any part, to which its application is deffred, with a great latitude in the impulfive power. It flows through a long flexible leather tube, with a brafs pipe at the end, and may be conducted to any part of the body, at any angle, and of courfe, with almoft any mitigation of the impulfe that may be required. It is well known that, the original impelling power being given, bodies frike one another with a proportion of this power, according to the fine of the angle at which they Atrike. Thus if we fuppofe the perpendicular force of a fream of water falling on a plane furface to be as 40, the fame ftream ftriking the fame plane furface at an angle of 30 degrees, will act with a power of 20 only, the fine of 30 degrees being to the perpendicular, or to the whole fine, as 20 to 40 , or as : 102.
may, ) I have directed a trial of the lime-poultice, compofed of one part of quick-lime fallen to powder in the air, and two parts of oatmeal, and this made into a poultice with hogs-lard, and fpread about one-half an inch thick on a cloth, and applied, temperately warm, to the part. This may be repeated every night, and removed in the morning, and continued an indefinite time. It generally produces fome degree of moifture or exfudation under it, though without raifing a blifter, and this gradual local difcharge is often an effectual, though gradual method of reducing tumours, both of the hip and of the knee. Vomits of turbith mineral have been fometimes given in incipient white-fwellings of the knee; I have feen them fo adminiftered, but without fuch proof, either of their efficacy, or of their fafety, as to encourage a trial of them in hip-cafes.

It happens indeed fometimes, either from the difeafe being too far advanced before the patients are fent, or from the tendency of the conftitution to hectic fever, that fuppuration will come on in fpite of all our efforts to prevent it. Such cafes being no longer fit fubjects
fubjects for a trial of the waters, are generally fent home with as much attention as poffible to their eafe and comfort.

If weather, diftance, or the violence of the difeafe will not admit of their removal, confiftently with their prefent fafety, or with proper attention to their fufferings, they remain at the hofpital ; and four inftances of perfons who paid the laft debt to nature under fuch afflicting circumftances, are recorded in the following table, and probably a fimilar fate attended a large majority of thofe who were fent home with proof, or ftrong fufpicion of matter being already formed.

TABLE of the State of the Patients at their Dijcharge, who were admitted into the Bath Hoppital for Hip-cafes, from May 1f, 1785 to April 7, 1801, clafied according to their Ages.

| Ages | Cured | Much beter | Betue | $\begin{gathered} \text { No } \\ \text { octe } \end{gathered}$ | $\begin{array}{\|c} \text { linpro- } \\ \text { per } \end{array}$ | $\left\lvert\, \begin{aligned} & \text { irre- } \\ & \text { sular } \end{aligned}\right.$ | Dead | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 10 years |  | 5 | 8 | 1 | 9 |  |  | 23 |
| $\begin{gathered} \text { From } \\ 10 \text { to } 20 \end{gathered}$ | 30 | 24 | 32 | 9 | 34 |  | 2 | -31 |
| $\begin{gathered} \text { From } \\ 20 \text { to } 30 \end{gathered}$ | 20 | 48 | 28 | 13 | 34 | 2 | 1 | 146 |
| $\begin{aligned} & \text { From } \\ & 30 \text { to } 40 \end{aligned}$ | 22 | 29 | 18 | 2 | 24 | 3 |  | 98 |
| $\left\lvert\, \begin{gathered} \text { From } \\ 40 \text { to } 50 \end{gathered}\right.$ | 21 | 30 | 15 | 7 | 16 | 3 |  | 92 |
| $\begin{gathered} \text { From } \\ 50 \text { to } 60 \end{gathered}$ | 8 | 25 | 6 | 1 | j | 2 | 2. one of the fmall-pcx. | 4 |
| From 60 upwards | 2 | 7 | 4 |  |  | 3 | 1. of the friall pox | 17 |
| Total | 103 | 168 | 111 | 33 | 122 | 13 | 6 | 556 |

It is proper to apprize the reader that by cured, in the fecond column of the foregoing table, is meant fuch perfons who have completely recovered from their complaint, and who have no fymptoms of the difeafe re-
maining, for which they were admitted. By much better is underfood fuch as have nearly recovered, but have ftill fome ftiffnefs, debility, or other mark of the difeafe remaining. This term, however, is never applied, unlefs to fuch as are nearly recovered, and never to crippled or helplefs perfons, however fuch may be circumftanced with regard to health.

By better we underfand perfons who have received obvious and material advantage, but who have neverthelefs ftrong marks of the effects of the difeafe. This term, however, is never applied to fuch as, although they may have received fome temporary alleviation of their fufferings, ftill labour under hectical or other fymptoms, that indicate their health to be declining.

It is much to the credit of the Bath hofpital, that a great degree of candour has been uninterruptedly preferved ever fince its foundation, above 60 years ago, in reprefenting the ftate of the patients when difmiffed. Thefe, when minuted to be difcharged by the attending phyfician, are again produced before fome of the other profeffional perfons, and examined as to the ftate they were in when admitted,
mitted, which is compared with their fate when iexamined, and both thefe are compared with the report of their fate by the attending phyfician. They are again produced before the committee, and feparately and regularly examined as to the fame points, and I have repeatedly witneffed the committee requefting the attendant phyfician, to alter the report, when it appeared to them that the amendment was more confiderable than it was put down in the report, but I never knew the fimalleft hint offered that the fate of the patient was more favourably reprefented by the phyfician, than it feemed to merit, on the examination before the committee. In fhort it has been the invariable rule to err, if at all, rather on the fide of caution, than on the contrary extreme, and to reprefent fuch patients only to have received benefit in any degree, whofe cafes cxhibited obvious and undeniable marks of amendment, not fuch as are merely probable, or any-wife equivocal.

It appears from the foregoing report of the fate of the patients, that out of 556 perfons admitted into the Bath hofpital for hip-cafes from May 1, 1785 , to April 7,1801 -103,
or about $\mathbf{x}$. in 5.398 received a complete cure, that 168 or 1 . in 3.03095 received great benefit, and were nearly recovered; that II 1 , or nearly one-fifth of the whole received fome benefit, and that the aggregate of thefe three numbers, amounting in the whole to 382 , or as 1 . in 1.4555 , or more than two-thirds received advantage from a trial of the remedy. Of the above numbers four only died in the hofpital of the difeafe, a very inconfiderable proportion, 33 or nearly a 17 th part of the whole were no better, 122 were deemed improper cales for a trial of the waters, and $I_{3}$ were difcharged for irregularity.

By thofe fet down under the title improper are meant, in general, fuch whofe cafes were, on their firft examination, or foon after it, thought to be improper fubjects for a trial of the waters, as being in too advanced a ftage of the difeafe, or from other circumftances of their health that forbad the ufe of the remedy ; much the greateft part of whom ought not to have been fent hither at all. In 97 of thefe out of 122 , matter was difcovered to be formed, or forming, very foon after their arrival, which of courfe rendered a trial of
the waters inadmiffible. Thefe, therefore, flould be flruck out of the account, as proving nothing refpecting the efficacy or inefficacy of the waters. The fame, it is obvious, may be faid of the 1 , 3, who were difcharged for irregularity, and indeed of thofe who died, as four of thele were, when fent, not in a condition to be removed with fafety and propriety, and two died of the fmall-pox.-This takes off 141 from the lift, and reduces the whole number, that hould be confidered on this occafion, to 4.15 . The proportions then will fand thus.

Cured 1 -in 4.1553 nearly.
$\left.\begin{array}{l}\text { Much } \\ \text { Better }\end{array}\right\}$ I-in 2.54 , or nearly two-fifths
Better 1 -in 3.74 .
Proportion of thofe who received benefit to the whole number as-9 2048.-to 10 . or above nine-tenths of the whole.

It is unneceflary to obferve how much the foregoing calculations, which are taken from the regifter of the hofpital, a moft accurate and authentic medical record, are in favour of the efficacy of the Bath waters in hipcafes, and it fhould be noticed that they plead ftrongly

Atrongly for a trial of them in the early ftages of the difeafe. It is more than probable that a large proportion of the unfuccefsful cafes, amounting in the whole to 159 , including thofe who were no better-improper - and thofe who died of the difeafe, would have received relief, had a timely application been made to this remedy.

Very few of thofe fpecified as improper were fuffered to make any trial of the waters, and in 97 of them, as I have before obferved, matter was difcovered at their arrival, or foon after, and the hectical fymptoms precluded all hopes from the ufe of the bath, and indeed left little from the trial of any other means.

It appears that the Bath waters applied in an early ftage of the difeafe have been nearly equally fucceffful at very different ages. Their good effects have been manifefted as early as five years old, and as late as 70 years, and the proportion of thofe who received relief at 60 years old and upwards, was as large as in the early periods of life.

The average ftay in the hofpital, of the firlt thirty of the perfons cured, is 105 days, of the fame number of thofe who were difcharged
charged muchbetter 155 days, and of the fame number of thofe who were difcharged better 138 days nearly. The average of the ftay of thofe who were benefited is nearly 133 days, or 19 weeks.

It appears that the Bath waters are more fuccefsful in hip-cafes at a warm time of the year than at a cold one, as is indeed the cafe with this remedy, when applied to other diforders.

Of 88 perfons taken in order, who received benefit, and who were admitted in the months of April, May, June, and July, 25 were cured, 39 were much better, and 24 better.

Of 105 perfons received in October, November, December, and January, 25 were cured, 41 were much better, and 38 better.

It is obvious that a larger proportion of thofe who were admitted in the fpring and fummer, and who had a profpect of a feries of warm weather, received a greater degree of benefit than thofe who were admitted in the autumn and winter.

I have thus finifhed my remarks on the tables, and truft I have eftablifhed the efficacy
of the Bath waters in this obftinate, painful, and dangerous difeafe.

They are undoubtedly very effectual, but much time is ufually neceffary to complete a cure; and indeed, it needs be no caufe of furprife, that a difeafe fhould take up as many months in its cure, as in fome inftances it has lafted years before the remedy was applied. In very recent cafes I have feen a few weeks complete a cure.

I fhall next add a few remarks on the hiftory of the difeafe, as defcribed by former writers, and the indications of cure, which they recommend or fuggeft.

The difeafe of the hip-joint was not unnoticed by Hippocrates. In his treatife on* internal diforders, there are feveral $\dagger$ chapters on this fubject under the name of I $\sigma \chi_{6} \alpha_{5}$.-He fays that it fometimes happens from long expofure $\ddagger$ to the fun's heat, no improbable caufe in a hot climate. It is defcribed as accompanied with a difficulty of turning, or even

[^14]of * moving the hip-joint, on account of the pain and fliffnefs. The former of thele is deferibed to be in the $\dagger$ back and loins, thofe parts efpecially, which are connected with the hips, and alfo in the knees. Sometimes the pain is in the $\ddagger$ groin, as well as in the hip, and when that is the cafe, it is aggravated by raifing the body from an inclined to an erect pofture, or on moving fideways. The pain he defcribes as acute, and accompanied with a fenfation of heat. In fome inftances it is attended with convulfion \| of the part, with rigor and other fymptoms of fever. He obferves that many become lame from this difeafe, and that an anchylofis of the joint is

 7vi.ous. Hipp. ue fupra.





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 hiv.
a common* confequence. He adds that it is a complaint of $\dagger$ long duration, and difficult to cure. The above account of the difeafe, though incomplete, is, as far as it goes, perfectly correct and agreeable to modern obfervation. The fpafm or convulfion of the part, though little noticed in modern accounts, is, when combined with fever, as it is here defcribed, not an uncommon fymptom, and ufually indicatory of fuppuration.

The method of cure, which he propofes, is more exceptionable on account of the articles, which made a part of the Materia Medica then in ufe, than it is on account of the indications which he direds to be purfued. He recommends a vegetable $\ddagger$ and milk diet, the repeated application of $\|$ fomentations, the ufe of purgatives, efpecially of purging clyfters, the application of cupping veffels to the part affected, and the drawing blood from

[^15]the veins in the hams. To this he adds a recommendation to move the * joint frequently, to prevent an anchylofis. In fome cafes he advifes fuppuratory difcharge to be made from the pained part by $t$ means of feveral deep fores or ulcers to be produced either by burning the part, with fungous fubftances, fuffered to confume flowly on it, or by means of a hot iron, or actual cautery. The plan of cure here laid down, is in a great meafure agreeable to modern practice. Low diet, local bleedings, purgatives, clyfters and fomentations, are our principal refources at prefent, as much as they were 2,500 years ago. Iffues, indeed, and fuppuratory difcharges where thought neceffary, are made in a manner lefs painful and terrifying, but the purpofe aimed at, is purfued by difcharges of the fame kind.

Hippocrates, in the third fection of the fifth Book of the Epidemics, relates a cafe


 ingorio, $\pi c \lambda \lambda \alpha \varsigma \varepsilon \sigma x \alpha \rho a s k x ı$ Raveias. C. LVI.
where the pain was fituated in the groin, and alfo in the hip-joint, in both of which a fuppuration was formed.

Purgatives and bleeding were tried, but in vain, and the patient died at laft, of the weaknefs occafioned by the excefs of the purulent difcharge. This cafe appears to me to have been rather a pfoadic abcefs than a hipcafe.

In the fucceeding cafe, which is more de.cidedly of the ifchiadic kind, Hippocrates appears to have been more fuccefsful.

He , howewer, remarks that in this inftance the pain that extended down the leg was not violent, and no fuppuration was formed, nor was the general health of the patient * affected. Purgatives, bleedings, and cupping were the remedies employed, which proved effectual towards a cure.

In the fixth fection of the Aphorifms of Hippocrates, there are two that refer to this difeafe, which I think have been miftaken by the tranflators, who have expreffed themfelves as if there was an entire diflocation of
 §. 3.
the head of the bone, when the word * implies no more than a projection, which is indeed, a partial diflocation. The meaning of Hippocrates is I think clear enough, that if the head of the thigh bone be at firft confiderably protruded, or, as he expreffes it, "ftands out," and again finks back (fuddenly is I think implied) into the focket or acetabulum, it indicates a fuppuration to have taken place, and this I take to be true, provided, as we may reafonably fuppofe, that Hippocrates meant, that there be no general amendment, or abatement of the fymptoms. The membranes which were at firft thickened by inflammation, and which thruft the head of the bone outwards being melted down by fuppuration, allow it to fall back again into the focket, from whence it had been pufhed by the thickening of the periofteum, or of the lining of the cotyloid cavity. The fucceeding aphorifm implies no more, than that hipcafes of long continuance accompanied with a projection of the head of the bone, are apt to. induce lamenefs and wafting of the limb, unlefs a cautery be uled.

[^16]Celfus* appears to have been acquainted with the difeafe, but has left little concerning it.

He obferves, that it is of the chronical kind, very painful and weakening, and in fome inftances mortal. He recommends firft fomentations, then warm cataplafms, and afterwards the application of cupping veffels, and of a $\dagger$ plaifter of hot brine, a remedy, yet in ufe in fome parts of our own country, for local pains. If thele fail, he directs the ufe of the actual cautery, and that the ulcers it produces fhould be kept open a long time.

Cælius Aurelianus is more diffufe, both refpecting the nature and defcription of the difeafe, and the means of cure.

He fpecifies $\ddagger$ cold as the principal caufe, efpecially as produced by \| lying on the ground, or digging in $\$$ moift earth, by fuch as are unaccuftomed to work in that man-

* L. IV. c. 22.
+ Sale calido et humido utendum eff. Celf. ut fupr. cit.
$\ddagger$ Perfrictio profunda-frigoris fufceptio.
- Terrena cubatio.
§ Infueta humi foffio.
ner. To thefe he adds, accidents by falls or * blows, violent ftrains from exercife, or exertions to lift $\dagger$ weights beyond the ftrength. He remarks, that it occurs at every time of life, but more commonly in middle age $\ddagger$, that it fometimes affects both fides, and calls it, when it appears in that form $\|$, Ifchias duplex. He defcribes the fymptoms to be, a fenfe of weight in § the part, and difficulty of motion, and in fome a flight torpor and prickling fenfation attended by a fenfe ** of heat, fever and reftleffinefs, accompanied by a pain friking through the middle of the $\dagger \dagger$
* Aut cafus vel repentinus percuffus.
+ Ponderis levandi ex interioribus conatio.
$\ddagger$ Fit præterca in omnibus ætatibus fed præcipue in mediis.
\| There is a man at prefent in the Bath hofpital, who is affected in this manner by working up to his middle in water, a caufe which it is evident mult operate on both fides alike.
§Gravedine et difficili motu. Cœl. Aurel, morb. chron. Lib. V. Cap. I.

IT Levi torpore et formicatione.
** Quibufdam cum vehementi atque pungenti, atque fervido dolore.
t† Uqque ad mediam natem et fuperius ad inguen ve] ad anealem perveniens, atque furam, dehisic etiam talum, et pedis fummitatem.
nates, and from thence upwards towards the groin, and defcending from thence through the calf of the leg, to the ancle and the foot. This is fucceeded by a* watting of the leg and thigh from the nates downwards, attended with weaknefs, and fometimes with $\dagger$ a fhortening, and at others with a lengthening of the whole limb. He defcribes the perfons fo affected as unable to begin $\ddagger$ to move without pain and difficulty, but thefe fomewhat abate on continuing the motion. They are, however, often obliged to ftop \| fuddenly in walking, and when they attempt to renew the motion, they find the fame difficulty as at firft. They are unable to fet the foot

* Cruris totius tenuitas fit, quam Grece atrophiam vocant, incipiens a cluníbus.
+ Brevitate cruris, aut ultra naturam diftenfione fuf. fecta.
$\ddagger$ Initia motus impediantur fervore partium atteftante, ac fi perfeverans fervor fuerit, motus facilior fit.

If Tum rurfus fubfidunt vel intenti reffifunt repente tanquam fuerant necdum graffu tentato.
§ Ambulant quidam capitibus digitorum gradientes, alii extenti quidem fed finuatis clunibus ut neque fe pronos inclinare valeant, alii contracte atque conducte qui pejus omnibus habere nofcuntur.

$$
\mathrm{P}_{4} \quad \text { firm }
$$

firm and flat on the ground, but are obliged to walk on tip-toe, fometimes with the legs extended, but with the nates preffed ine wards fo that they are unable to bend forward. Others have their legs drawn clofe together, which is efteemed among the worft fymptoms.

He fuppofes the feat of the difeafe (and as I think rightly) to be in the ${ }^{*}$ periofteum or rather the cartilage, covering the head of the thigh bone, which, when the difeafe becomes aggravated $\dagger$, generates matter and fanies, and forms abceffes. The above account is all that is material which I have been able to collect from this writer, and argues him to have been well acquainted with the nature and fymptoms of this difeafe, and the indications of cure, which he lays down, appear to me to be fufficiently judicious, and indeed agreeable to modern practice.

* Patitur autem principaliter membrana quæ offa circumtegit quam Grxce periofteon vocant.
+ Denique augmento paffionis, intercreatus humor et frequenti dolore corruptuș in faniem tranfiens, partes aliquas collectionibus afficit.
N. B. All the paffages quoted from this author are from L. V. C. I:

He directs the patient to Be laid on a * foft bed in a warm place, and to ufe abftinence and reft. The part affected is ordered to be covered with foft wool moiftened with warm fweet oil. He alfo recommends a vapour bath, and a fomentation of the oily kind. Bleeding $t$, a fpare diet and clyfters, are alfo recommended, and the latter, not merely as evacuants, but as acting in the capacity of an internal fomentation, gentle $\ddagger$ laxatives are prefcribed, but ftrong purgatives forbidden. If the pain refifts thefe remedies, he advifes fcarifications (probably with a view to cupping) of the part $\|$, and leeches, together with a fomentation of fponges foaked

* Facere faciamus ægrotantem mollioribus ftramentis calido in loco adhibita, abftinentia et requie ufque ad primam diatreton. Tunc lanis mollibus ac limpidis oleo calido dulci prætinctis dolentia loca contegenda adhibenda, etiam fomentatio juges ex oleo dulci calido item vaporationum commutatio.
+ Phlebotomia tempore confueto.
$\ddagger$ Adhibenda injectio-quo pariter fota atque vaporata interiora laxamento confentiant.

Tentanda denique ac properanda requentibus diebus facilitas ventris.
\|| Adhibenda fcarificatio. Hirudines etiam adhibendx.
in * warm water, probably to encourage the bleeding.

The actual cautery $\dagger$ is alfo recommended to be applied in fuch a manner, as to raife a fuperficial inflammation, but not to deftroy the fubftance of the part to which it is applied. The fungous excrefcences $\ddagger$ of trees are recommended for the fame purpofe to be placed on the part affected, and ilowly confumed thereon. A cataplafin of muftard directed to raife a blifter, or one of muftard, quick-lime and fulphur made up with oil and water $\|$, and in effect probably not very un-

* Tunc vaporatio fpongiarum ex aqua calida.
+ Tunc cauteres longi atque igniti immittendi, qui quidem cutem tangere minime debent.
$\ddagger$ Alii ligneos fungos inferius ac fuperius anguftos formantes patientibus apponunt locis, quos fummitate accenfos finunt concremari donec cinerefant et fponte decidant.

I Sinapi admifcentes glebæ calcis æquis ponderibus ad fu!phuris 'partem et fimul conterentes parvo oleo et aqua admifta.

A bag of hot falt is advifed much in the fame way as ditected by Celfus, as above cited. Oportet facellum lintcum implere fale torrido et apponere patientibus partibus.
like
like to the lime-poultice above defcribed, but as it fhould feem more acrimonious.

Such is the bafis of the practice recommended by this writer, which is felected from a farrago of ftrange frivolous additions, expreffed in a dialect uncouth, and difficult to be comprehended, but fill not fo obfcure as to prevent our difcovering that the author was well acquainted with the appearance of the difeafe-with its nature-and with the objects proper to be purfued, in order towards its cure.

To come to modern times : it is fomewhat extraordinary, that Boerhaave and his commentator Van Swieten, who paid fo much refpect to the ancient writers, and fo frequently cite them, fhould have neglected the information they communicate, and have confounded this difeafe with rheumatifm and fciatica, with which it has little or no connection, and from which it is clearly diftinguifhed by the writers of antiquity. Van Swieten, appears to have borrowed moft of his information on this fubject from Columnius, who probably had often feen the complaint, but neither Boerhaave nor Van Swieten give any defcription of it, nor fuggeft any reme-
dies or indications of cure worth repeating in this place. M. De Haen, has left a Treatife of 38 pages de Morbo Coxario, but I can difcover little in it that can aflif us either in diftinguifhing, or in curing the difeafe. I even doubt if he was properly acquainted with it, as diftinct from rheumatifm and fciatica, and the effects of external violence. He never mentions cold among the caufes, although the mof common of any. He, however, remarks the partial diflocation *, occafioned by the enlargement of the fynovial gland at the bottom of the acetabulum, by which the head of the thigh bone was thruft upwards, and the limb fhorterred.

His method of cure is founded on a blind veneration for the writings of Hippocrates, whofe opinions, though curious and far furpaffing what might have been expected at fuch an early age, and under other difadvan-

* Tumida admodum glandula in cavo acetabuli ut en put offis femoris intra illud excipi non poffet. - Unde demum caput offis femoris ex cotula trudı cœptum crus fenfim brevius redditum, et integra fed extenfa adhuc capfula idem caput offrs ad fuperiorem cavi acetabulo marginem applicatum. De Haen de Morb. Coxar.
tages,
tages, it were abfurd to introduce to fuperfede modern experience and obfervation, which has added much to the hifory of the difeafe itfelf, and fuggeited means of relief more effectual, as well as more eafy to the feelings of the patients, than the coarfe and painful applications recommended by the older writers.

Mr. Sauvages feems to have had only a grofs and indiftinct idea refpecting this complaint.

The fpecies called the Ifchias ex Abceffu, and the lfchias rheumatica, come the neareft to the one here under confideration, but the former is little more than an advanced ftage of the difeafe, and the latter is erroneoufly connected with rheumatifm, and both of them are fo imperfectly defcribed, as to make it doubtful if the author had any perfonal experience refpecting it.

Dr. Cullen has not included Ifchias among his genera or fpecies morborum, but confounded it with rheumatifm with which it has no connection.

Dr. Francis Home, profeffor of Materia Medica in the Univerfity of Edinburgh, has noticed this difeafe in his chemical experi-
ments and hiftories, and has produced feven cafes to prove the efficacy of the oleum terebinthinx. I have no experience of the remedy, but am confident moft of the cales fent to the Bath hofpital would not admit of the trial of fuch a medicine without danger. It feems very doubtful to me if any of thofe he defcribes were properly ifchiadic cafes, except the two firft, and even thofe are not decidly fo.-According to his experience men are more fubject to it then women, and this nearly in the proportion of five to two. This coincides nearly with my own obfervation. Of $55^{6}$ patients, $4^{1} 3$ were men, and 143 women, which is nearly as 5 to 1.7312 .

His next conclufion is altogether confuted by the foregoing table.

He fays, " that it is a difeafe of advanced age, and that he does not recollect ever fee-ing one in this difeafe in the vigour of life." Unfortunately for this obfervation it happens, that of $55^{6}$ patients, 375 , or more than twothirds, were from 10 years old to 40 , an nterval that certainly includes the prime and vigour of life. The Doctor's experience in this complaint was too limited to warrant his
conclufion. The late Dr. Charleton, who was himfelf many years phyfician to the Bath hofpital, and had frequent opportunities of feeing this complaint, has given (collaterally) a brief, but, as far as it goes, a very accurate, account of it, which is indeed the firft I have feen which bears the marks of extenfive perfonal experience.

The method of ufing the waters, which he recommends, is nearly the fame with the one above-mentioned *.

* Dr. Char'ton fays, that "Dr. Oliver jufly remarks, that when the cafe is recent, and the patient. young, our waters frequently affect a cure. To which he adds, that when the difeafe has been of long fianding, they feldom do much fervice; and, if the parts are much inflamed, but particularly if matter is formed, the ufe of them is highly injurious. Recent cafes in all difeafes admit moft eafily of relief, but in the prefent, we need not defpair from the long continuance of the difeafe, provided it has not advanced to the fate of fuppuration, and hectic fever. A man now in the hofpital, is in a fair way of being relieved, though his complaint is of four years ftanding, and indeed moft of them are from twelve months to two years duration.-It is not the long continuance of the difeafe, but the advanced fage of it, that renders the trial of the waters improper.

It appears from his account, that the num= ber of hip-cafes fent to the Bath hofpital, in twelve years, namely, from May r, 1761 to May 1, 1773, amounted to 296 , of whom 192 were cured or benefited, two received no benefit, two died, one was difcharged for irregularity, and ninety-nine were improper. The proportion of the perfons benefited to the whole number admitted, is greater in the table I have exhibited above, than in Dr. Charleton's account.

Either of them, however, fufficiently prove the efficacy of the Bath water in relieving fuch cafes.

Mr. Adwatd Ford, furgeon to the Weftminfter general difpenfary, publifhed, A.D. 1794, a work, intitled, "Obfervations on the Difeafe of the Hip-joint, \&c."

This gentleman has given a good defcription of the difeafe, and has added feveral uleful plates, particularly the firt which hews the fate of the mufcles covering the nates, and thofe immediately below them, which afford fome of the earlieft and moft decilive figns of the prefence of the difeafe.

His indications of cure appear to me to be proper and judicious; I am however, inclined to think that he places too much dependance on the benefit to be derived from iffues, and toc little on the effects of the warm bath.

Had he confidered Dr. Charleton's report of the proportion of thofe benefited by the warm bath, he would probably have ranked it higher in his eftimation. I have thus finifhed what I mean to fay on this fubject. I have endeavoured to be as concife as poffible, confiftent with a fufficient explanation of my meaning. I have candidly ftated the facts that have fallen under my obfervation, having no temptation to make an empirical difplay of the advantages of the remedy, but merely wifh to lay before the public, from evidence not to be queftioned, fuch an account of its effects, as may affift thofe who are intruited with the care of perfons fo affected, to form their own judgment on the probability of fuccefs in each individual cafe.

I cannot, however, conclude without earneftly recommending to thofe to whom the Vol. VI.
 tefti-
teftimonies above recited appear fatisfactory, to make a trial of this remedy, in as early a flage of the difeafe as poffible; fince, if it be delayed to a late period, it will ferve only to aggravate mifery, and haften diffolution.
ARTICLE XIX.

Obfervations on the Pofition of Patients in the Operation for Lithotomy, with a Cafe.

By NATH. SMITH, M.D. \&cc.
Of Hanover, State of New Hamphire.
[Communicated in a Letter to Dr. LETTSOM.]

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\text { Read, June 14, } 1802 .
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> Hanover, State of New Hamp?ire, Dec. 19, I80I.

Sir,
More than four years have elapfed fince I had the honour to be elected correfponding member of the London Medical Society; and though I have not before made any communication to that Society, I hope my exertions have not been wholly loft.

On my return from England, a Medical Inftitution was eftablifhed at Dartmouth College. We have delivered one courfe of

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Q_{2} \text { lectures }
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lectures annually, on the different branches of this fcience, illuftrating the modern and mof approved theory and practice.

Several cafes of difeafe, worthy of fome notice, have fallen under my obfervation.

Eight weeks ago, I performed the operation of lithotomy on a man $7^{2}$ years of age; he had been afflicted for two years, with calculous fymptoms.-His limbs had alfo become fo inflexible, by rheumatic affections, that his thighs could not be feparated more than fix inches, nor his knees bent but very little; -and thus his lower limbs could only be brought to about a right angle with his body. Under all thefe embarraffing circumftances, he was determined on the operation; which I accordingly performed, and extracted forty-feven ftones from his bladder.-I have herewith forwarded two, one of the largeft, and one of the fmalleft fize.-On breaking them you will find a nucleus, as large as a fmall cherry-ftone; and in this nucleus you will find another, about the meafure of a fmall pin's head. Such is the ftructure of all I have examined.

The patient had no bad fymptoms after the operation; and is now almof entirely reco-vered.-One circumftance, in this cafe, perhaps, deferves more particular notice; by the inflexibility of his limbs, the patient could not be placed in the pofition recommended by Mr . Bell, for the operation of lithotomy.We could only bring, as I obferved, his lower extremities to nearly a right angle with his body; which were fupported, in that fituation by an affiftant, ftanding with one foot on each fide the body, with his back toward the patienturstiead.

The patient was placed on a bed, properly raifed, and fo inclined that his hips were confiderably higher than his head; his fuperior extremities being left entirely free.-In this fituation, the bufinefs was conducted with the greateft eafe and fafety.

Two affiftants, one on each fide, were required to retract the fkin and cellular fubfance as they were divided, this pofition not rendering the parts fufficiently tenfe to recede without fuch aid. - The gorget being fixed in the ftaff, the operation was finifhed with equal facility, as if the patient had been placed in the ufual pofition.

After performing this operation, it occurred to me that authors have erred in eftablifhing a general rule; that, in operations for the ftone, the patient fhould be placed on a table, with his hands tied to his feet or ancles.This pofition muft be painful, and I believe dangerous, efpecially to corpulent perfons; it will comprefs the abdomen, and force the vifcera, contained in that cavity, upon the fuperior part of the bladder; thus expofing them to be wounded by the gorget.

I believe, in fome cafes, it has deranged the bladder, and rendered it difficult for the forceps, when introduced, to feize the fone. I once operated on a corpulent man; after pufhing the gorget into the bladder, I introduced a ftraight pair of forceps; but could not, in repeated trials, touch the ftone. Afterwards, by a large pair of curved forceps, I I found it towards the pubis, and extracted it with difficulty; the patient died. In this cafe, I apprehend, if the patient had been placed on an inclined plane, with his fuperior extremities free, the ftone would have fallen back towards the fpine; fo that the ftraight forceps would have reached it.

I know

I know of no advantage in confining the hands of perfons fubjected to this operation, unlefs to prevent their refifting the operator; and this can only be neceffary with very young fubjects, in which cafes, the ufual fituation is more tolerable.

Perhaps I am too precipitate in my conclufions; but I fhall, in future, leave the hands of my patients at liberty, while under the operation of lithotomy.

I am, very refpectfully, Sir,
Your moft obedient and humble fervant, NATHAN SMITH.
A R T I C L E XX.

Cafe of a great Enlargement of the Scroture.

By F. RIGBY BRODBELT, M.D. \&c.

Of Spanish-Town, Jamaica.

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\text { READ, FEB. } 24,1800 .
$$

Thomas Rivers, æt. 50, a negroe, laboured under gonorrhæa fome years ago, which occafioned ftrictures in the urethra. This latter affection was treated in the ufual manner, by bougies, which fo far relieved the complaint, that the patient was able to pafs his urine in a pretty full ftream.

In this ftate he continued for eight years ; at which period, four years from the prefent time, he received in riding a violent bruife on the right tefticle, from the pummel of the faddle, which occafioned great inflammation and pain. Thefe fymptoms, although painful, gave way without producing any apparently alarming confequences, when twelve months
from the accident, tumefaction took place in perinæo, and was foon fucceeded by abfcefs and fiftula. From this period the fcrotum began to enlarge, which it has daily continued to do; and although for fome time paft, the increafe has not been fo rapid as.at firft, yet it is even now fufficiently perceptible.

To the feel the fwelling is in general foftifh, but there are fome places which are much indurated. To appearance the tumor feems to be of the nature of fteatoma; and its very great bulk affords an inftance of an organ originally fmall being capable of great change by difeafe *.

There are feveral apertures at which the urine efcapes, and fome of them are even fituated at the moft interior and fuperior part of the tumor; but for the moft part, the urine paffes by fiftulx, in the pofterior and inferior part of the fwelling. - The patient alfo difcharges a fmall quantity by the natural paffage.

* On meafuring the fcrotum, I found that along the courfe of the raphe, from the anus to the inferior part of the penis, meafured two feet ten inches. - In the transverfe direction it meafured three feet eight inches.From one groin to the other, along the circumference of the tumor, four feet.

The left tefticle can readily be difcovered in fitu, but the right, on which the injury was inflicted, cannot be felt.

Although the tumor has already rifen to a fize uncommonly large, it is for the moft part indolent, and when pain is occafioned, it is chiefly in perinæo and in the loins, arifing probably from the acrimony of the urine, and the weight of the tumor.

This inconvenience, however, is much remedied by a large fufpenfory bandage, which enables the poor man to move a little from one place to another.- The functions of the patient are natural, and any deviation from the molt perfect health feems to arife more from his fedentary life, than from the complaint.
REMARKS.

Although fiftulx in perinæo are very diftreffing and tedious complaints, and feldom produce much enlargement of the fcrotum, yet from the above related cafe, we have reafon to think that this uncommon appearance took its rife from the fiftula in perinæo. -It is not eafy to account for this enlargement from the influence of the urine, as the
ufual effects of urine, depofited in cellular membrane, are well known.

But, as the fwelling commenced as foon as the urine had infinuated itfelf into the cellular fcrotum, we muft fuppofe that in this patient, from fome peculiarity of conftitution, the urine, by inflaming the parts, caufed it to put on this appearance, inftead of producing a more ferious termination, by gangzene.

In the Weft Indies, but particularly in Barbadoes, the negroes are much troubled with an enlargement of the fcrotum, whether arifing from an increafe of the teftis, or of the fcrotum, I am ignorant, probably from both.-The hydrocele is alfo prevalent, and in this ifland, from a venereal caufe, it is not uncommon to fee the tefticle and fcrotum much enlarged, indurated, and ulcerated, putting on the appearance of cancer, which, however, gives way to a well directed courfe of mercury. Whether the difeafe of our patient had imbibed any of thefe peculiarities of a warm climate, or is to be efteemed an accidental occurrence, I cannot prefume to determine.

April, 1797.

236 MEMOIRS OF THE
Since writing the above cafe the man returned home, and remained for fome months nearly in the fame fituation; but I have been lately informed that he died a fhort time ago, the tumor having been attacked with gangrene in feveral places, probably at thofe apertures through which the urine efcaped.
F. RIGBY BRODBELT.

Spaniih-town, Jamaica,
Jall. 1, 5798.
ARTICLE XXI.

Two Cafes of Diabetes, with Obfervations on the different States of this Difeafe.

## By JOHN BOSTOCK, M.D.

Correfponding Member of the Society.
One of the Phyficians to the Liverpool Difpenfary, \&cc.

$$
\text { ReAd, Nov. I4, } 1804 .
$$

## CASE I.

J. R. aged 30 , of a delicate habit of body, and rather below the middle fize, had enjoyed good health until about fix months ago, when he began to experience great weeaknefs, which encreafed fo much, that in a fhort time he was unable any longer to purfue his ufual occupations. The only caufe to which he can attribute his complaints is, that previous to their commencement he had worked unufually hard, had confequently fweated much, and in that ftate had drank very copioufly of butter-milk and water. His firft morbid fymptoms
fymptoms were general weaknefs and great thirft, accompanied with a heat and drynefs of the mouth ; his appetite became, about the fame time, unufually voracious; and foon after he perceived an increafe in the quantity of his urine.

At prefent he principally complains of weaknefs and thirft ; his appetite is greater than natural, and he has occafional uneafinefs about the ftomach. He has had, for the laft few days, a diarrhæa attended with griping pains in the bowels. In the morning he expectorates a large quantity of a fweetifh-tafted mucus, which is fometimes freaked with blood, but he imagines that the blood proceeds only from his gums. Although his thirft is fo urgent, and he has a conftant fenfation of drynefs in the fauces, yet his tongue is moift and peculiarly clean. The teeth feel fore, and the gums are fpongy, and inclined to bleed. His flkin is dry, and he appears never to perfpire. In a morning he has frequent cramps in the calves of the legs. He is much emaciated, the mufcular debility is confiderable, and is rapidly increafing. His temperature is uniformly below the flandard
of health, varying from $92^{\circ}$ to $94^{\circ}$. The pulfe is regular and of the natural ftrength; the refpiration is alfo natural.

The quantity of urine which he voided in the 24 hours was about 8 quarts; it was of a light primrofe or ftraw colour; when viewed acrofs the light it was flightly opake, and when agitated fomewhat mucilaginous. Its cdour was not in the leaft urinous; it reddened litmus. Its fpecific gravity varied from 1.026 to 1.04 r . When a quantity of it was kept in a temperature of about $60^{\circ}$, fermentation commenced in a few days, and in a week its furface was covered with a thick ftratum of yeaft. The clear fluid being then feparated, it exhibited all the properties of a weak vinous liquor, and it remained for fome months, without undergoing any farther change.

2240 grains of the urine were flowly evaporated; a matter, in confiftence and fmell exactly refembling a thick fyrup, was produced, which weighed 248 grains. The fyrup being then expofed to the atmofphere, in a few days a number of folid particles were formed in it ; thefe increafed in fize,
until at length the whole was converted into a mafs of a granulated texture, which in its external appearance was very fimilar to manna. When reduced to powder it exactly refembled a fine brown fugar. It fhewed no tendency to deliquefce, nor did it experience any change after being expofed for many weeks to the atmofphere.

If we fuppofe an ounce of this patient's urine to weigh 550 grains, and that 8 quarts are evacuated in the 24 hours, the weight of the whole urine difcharged during this period will be 140,500 grains. But the folid matter left by evaporation, amounted to $\frac{\div}{9}$ of the whole weight, therefore 15,644 grains, or about $32 \frac{1}{2}$ ounces of folid matter are removed from the fyftem in 24 hours. The average quantity of the urine in health is 40 ounces, which at 520 grains, per ounce, will in the whole make 20,300 grains. The folid matter contained in healthy urine, may be eftimated at $\frac{i}{30}$ of its weight, this will give in the 24 hours 693 grains, or $11 \frac{1}{2}$ drachms of folid matter. It appears therefore, that in the cafe of this patient, about 31 ounces of folid matter, were every day carried off by the urinary
urinary difcharge more than the quantity ufually removed by this channel. By proceeding upon the fame data we fhall alfo find the amount of the fluid difcharged by this patient very greatly to exceed the ftandard in health. If we eftimate, as before, the weight of the whole at 140,800 grains, and the folid part at 15,644 , we have the quantity of lluid equal to 125,156 grains. From the fame method of calculation, we fhall find the watery matter difcharged in the ufual ftate, to be 20,800 grains, which quantity being fubtracted from the former, leaves an excefs of 105,040 grains, equal to nearly 219 ounces.

Portions of the frefh urine of 840 grains, each, were refpectively fubmitted to the action of the following re-agents; the fubftances were gradually added until a precipitate was no longer produced.
A. Potafh.
B. Ammoniac.
C. lime Water. D. Muriate of Barytes. I. Nitro-Mur. of Tin. E. Acetate of Lead.
A. A precipitate, was produced in fmall quantity, and the odour of ammoniac was perceptible.

Vol. VI.
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B. The
B. The fluid was rendered flightly opake, and after fome time a fmall quantity of a precipitate was thrown down, which weighed about $\frac{1}{4}$ of a grain.
C. A precipitate was thrown down, which weighed about $\frac{1}{3}$ of a grain.
D. A precipitate was produced, in moderate quantity, which fubfided rapidly; and when collected, weighed fomewhat more than 3 grains.
E. A milkinefs was produced, and after fome time a precipitate, which weighed about 4 grains.
F. When the acid was firlt added, there appeared to be a little nitrous vapor difengaged; after fome time a minute quantity of a brown precipitate fell down.
G. At firft no effect was produced, after fome time a very inconfiderable precipitate was formed.
H. The precipitate was very copious; 14 grains were collected, and a part adhered to the edges of the filter, which appeared as if coated with a varnifh of gum. The precipitate, when dried, was an earthy-like fubftance, of a light brown colour.
I. A
I. A copious precipitate was produced ${ }_{3}$ which flowly fublided. Part of it adhered to the filter; 6 grains were collected, which when dried, formed a reddifh-brown, brittle, femitranfparent fubftance:

By means of the fix firft of the above reagents, the refpective quantities of the different faline matters contained in urine, are afcertained; by comparing the above experiments with fimilar ones, made by Mr. Cruickfhank *, it will appear, that the different falts exift in the diabetic urine, now under confideration, nearly in the fame proportion to each other, as in the healthy ftate of the fluid, but that they amount only to about $\frac{1}{3}$ of the abfolute quantity. My patient was, however; at this time difcharging above 6 times the natural quantity of urine, fo that it would feem, that in this inftance, twice as much of the different faline fubftances was evacuated, as ins the healthy ftate.

The infufion of galls has been employed as a teft of the quantity of jelly in the urine; the quantity, in my experiments, was fo fmall as to render it difficult to afcertain the exact

[^17]R. 2
amount, but after making allowance for the great bulk of fluid difcharged, it may be inferred that the jelly was not evacuated in more than the ufual proportion.

The precipitate from healthy urine by goulard is very confiderable, it fometimes amounts to $\frac{1}{\text { Ts }}$ part of the weight of the whole urine employed. It feems not only to precipitate the muriatic and phofphoric falts, but to unite with a great part, if not the whole, of the animal matter. I conceived this property to depend upon the power which goulard poffeffes of coagulating and precipitating mucilage, and as I found that it does not exert any action upon fugar, even when mixed with mucilage, I had fome expectation of being able, by means of this re-agent, to obtain, in a feparate flate, the faccharine matter contained in diabetic urine. A quantity of the urine, in which goulard produced no farther precipitate, was filtered and flowly evaporated. A dry, friable extract, was left, which in confiftence and texture confiderably refembled a fine brown fugar. This extract was fpeedily diffolved, without effervefcence, in diluted nitric acid; when kept for fome time at the boiling
heat, no nitrous gas was extricated, nor was there any oxalic acid produced by a careful evaporation. The heat being fill farther increafed, it was reduced to a black tenacious mafe, which exhaled a naufeous, empyreumatic fmell.

The precipitate itfelf was afterwards heated with diluted nitric acid. Upon the application of heat, the whole was diffolved, except a fmall quantity of a white powder; no nitrous gas was difengaged. Upon cooling, fome white cryftals, compofed of the nitrate of lead, were formed, but no oxalic acid, was produced. It feemed, therefore, that by the action of goulard, the faccharine matter, previoufly contained in the urine, was decompofed, or at leaft was fo far altered in its properties, as to be no longer capable of affording oxalic acid.

The nitro-muriate of tin is an active precipitant of jelly, but has no effect upon the folution of fugar in water. I therefore employed it with the fame intention, that the goulard had been previoully ufed, expecting that it might feparate the animal fubftances from the faccharine matter. A quantity of
diabetic urine, after the precipitate produced by the nitro-muriate of tin had been feparated from it, was evaporated. A refiduum was left, of the confiftence of a thick fyrup, which, in appearance, refembled that produced by the evaporation of the whole urine. A part of it being fill farther heated, an acid vapor was difengaged, and the extract was converted into a dry, carbonaceous fubftance.

A quantity of the fyrup-like matter was heated with nitric acid; by a flow evaporation cryftals were formed, of a flat lamellated texture, exactly refembling thofe produced by the union of nitric acid and urea. A portion of thefe being added to lime water, a precipitate was thrown down, in fmall quantity, thus proving that they contained oxalic acid, though it was evident, both from the appearance of the cryftals, and from the quantity of the precipitate, that it compofed only a very inconfiderable proportion of their bulk.

The precipitate produced from diabetic urine by the nitro-muriate of tin, was itfelf afterwards heated with diluted nitric acid. Upon the application of heat, the vapor of the
the nitro-muriatic acid was difengaged, the fubftance affumed a white colour, but it remained, for the moft part, undiffolved. No cryftallization was produced by the evaporation of the acid; but upon the addition of potafh, a fmall quantity of a white powder was thrown down. The effect of the nitromuriate of tin upon the urine was fomewhat fimilar to that of the goulard. The greateft part of the faccharine matter was either decompofed, or had entered into fome new combination, fo as to be no longer capable of forming oxalic acid. The urea, however, was left in the fluid unchanged, and exhibited its ufual properties, when fubjected to the action of the nitric acid.

The folid extract left by the evaporation of this urine appears to have amounted daily to $32 \frac{x}{2}$ ounces, which is about 3 I ounces more than the quantity ufually difcharged. The proportion which the falts in the urine bear to the urea has been varioufly eftimated; according to Mr. Cruickfhank, the weights of each are nearly equal *, whereas M.M. Fourcooy and Vauquelin, fuppofe the faline fub-

* Rollo on Diabetes, p. 439 .
fances to be only $\frac{1}{2}$ of the weight of the extract *. This latter calculation I am inclined to believe is fomewhat exaggerated, although certainly much nearer the truth than that of Mr. Cruickfhank. Upon the whole, I thiuk we may fate the proportion at about $T_{T}^{T}$. Suppofing the average quantity of folid matter daily difcharged by the urine in health to be 693 grains, the different faline fubfances will be 70 grains; and according to the experiments related above, in this diabetic patient they would amount to twice that quantity, $i$. e. to 140 grains. We fhall, therefore, have 15,504 grains left for the animal matter difcharged, and the proportion between the falts and the animal matter will be nearly as 1 to 100 . I found the effect of alcohol upon the diabetic extract to confirm this idea of the proportion of its conflituents to each other. One drachm of the extract, being kept for fome time in boiling alcohol, was nearly diffolved; the refidue amounting apparently to no more than half a grain.

The prefence of faccharine matter in diabetic urine has iong been diftinctly afcer-

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\text { Annales de Chimie, T. 3T. p. } 68 \text { tained, }
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tained, both from the fenfible properties of the Auid, and likewife from the power which it poffeffes of experiencing the vinous fermeniation, and of producing the oxalic acid. Until lately, however, phyfiologifts bave been fatisfied with merely afcertaining the exiftence of the fugar, and they appear never to have inquired, whether it conflituted the whole or only a part of the refiduum. The experiments of Mr. Cruickhank, the earlieft accurate experiments which were made on the fubject, at firft view lead us to conclude, that the extract is entirely compoled of faccharine matter, for he informs us that he obtained as much oxalic acid from a given weight of the extract, as from the fame quantity of fugar *. Upon a clofer examination of his experiments, however, it will appear that he is not warranted in drawing this conclufion from them. He informs us that he was able to procure from an ounce of fugar a quantity of oxalic acid equal to 4 drachms and 20 grains, whereas it feems that, from the fame weight of diabetic extract, he only obtained three drachms of oxalic acid $\dagger$.

[^18]The cryfaline matter which is produced by the action of nitric acid upon the urea, has been defcribed both by Cruick fhank and Fourcroy; Mr. Cruickfhank makes no mention of the production of this peculiar fubftance, upon the application of nitric acid to the diabetic extract; but appears to have confidered the whole of the cryftals formed as being oxalic acid. The fame opinion is more decidedly fupported by M.M. Nicolas and Guauderille, who, in their late experiments upon diabetic urine, diftinctly notice the abfence of this fubflance, and point out the want of the urea as one of the diftinguifhing characteriftics of this difeafe*. My own experiments, however, have afforded me very different refults. I mixed a quantity of the dry diabetic extract, with 6 times its weight of a mixture of equal parts of water and nitric acid. It was treated in the manner ufually adopted for obtaining oxalic acid from fugar, and a quantity of cryftals were accordingly formed, which at firft view appeared to be compored of this fubfance; but in which, upon a clofer infpection, befides the long fpiculæ of the oxalic

* Annales de Chimie, T. 44. p. 62.
acid, I difcovered a portion of the flat lamellated fcales, which are produced from the uréa. By repeating the experiment, and clofely watching the progrefs of the cryftallization, I conceived that the oxalic acid was firff formed, and afterward the flat fuales; and I confequently thought, that by interrupting the procefs, it might be poffible to procure them feparate from each other. Accordingly from the fame portion of extract, 2 fets of cryftals were obtained ; in the firt nothing but oxalic acid was vifible, while the fecond appeared to be principally compofed of the nitrate of urea. The proportion which they bore to each other, was about 6 parts of the oxalic acid to 1 of the latter fubftance. As the event of this experiment was in direct contradiction to the exprefs affertion of the French chemifts, and to the implied refult of Mr. Cruickfhank, I thought it neceffary to repeat it until there could no longer remain any reafonable caufe of doubt.

Having afcertained that the urine contained both fugar and urea, I was led to inquire what proportion thefe fubftances bore to each other, and whether the total quantity
of urea difcharged in diabetes, was greater or lefs than that evacuated in health. As I had not yet been able to difcover any re-agents by which thefe fubftances could be feparately precipitated from the urine, the only means of determining this point was, by afcertaining the refpective quantitics of the compounds, formed by their union with the nitric acid. An ounce of fugar, when acted upon by the nitric acid, produces fomewhat more than $\frac{x}{3}$ of its weight of the oxalic acid; the fame quantity of urée, by proper management, affords about $\frac{2}{3}$ of its weight of the lamellated fcales. In order, therefore, that the oxalic acid and the nitrate of urea fhould exift in the proportion of 6 to $r$, as in the experiment related above, it would be neceffary that the extract fhould contain about 12 parts of fugar, to one part of urée. Proceeding upon this datum, and eftimating the whole quantity of animal matter difcharged, at 15,504 grains daily, we thall have 1192 grains for the amount of the urea, within 48 grains exactly double the quantity evactsated in health. It muft, I think, be confidered as fome confirmation of this eftimate, that by a previous calculation,
culation, we had found the different faline fubftances alfo to exift in the fame proportion.

It fill, however, remains to be confidered, whether we are warranted in drawing a general conclufion from the effect of the nitric acid, upon the diabetic extract now under confideration. Although, in this particular inftance, there can be no doubt that it contained urea as well as fugar, yet we cannot be affured that this combination took place in the cafes examined by Mr. Cruickmank, and the French chemifts. The determination of this queftion mult be left to the decifion of future experiments. It may, however, be proper to remark, that as the oxalic acid appears to be formed before the nitrate of urea, it is poffible that the cryftallization may not have been pufhed far enough in thofe cafes, where oxalic acid only is ftated to have been procured. Even where the procefs is properly conducted, but where there are no particular pains taken to obtain them feparate from each other; the quantity of the oxalic acid is fo much greater, and its peculiar form renders it fo much more confpicuous, that the fcales might
be rery eafily overlooked by a perfon who did not fufpeet their prefence. My patient was certainly, in every refpect, a perfectly fair fubject for the experiment; the proportion which the folid bore to the fluid part in his urine, was as great or greater than in any cafe upon which accurate experiments have been madc *, and with refpect to the extract itfelf, its faccharine impregnation was fo confiderable as to enable it to cryftallize fpontancoully; a proof that it exifed in more than the ulual proportion. Among the cafes detailed in Dr. Rollo's publication, as either feen by himfelf, or of which an account is given by his correfpondents, there is only one, viz. that of Mr. Shirreff's, in which the extract could be obtained in the folid form ; in general, it was only reducible to the fate of honey or melaffes.

[^19]The peculiarities in this patient's urine may be fated as follows ;
r. The extractive matter of the urine difo charged in the 24 hours, was about 3 I ounces more than the quantity difcharged in healeh, or about 22 times the ufual quantity.
2. The water evacuated during the fame period, was about 219 ounces more than the ordinary quantity, or about 6 times the quantity in health.
3. About twice as much urea was difcharged as in health.
4. The urine appeared to contain the fame faline fubftances as in health, and in the fame proportion to each other; but they, as well as the urea, exifted in about twice the ordinary quantity.
5. About 30 ounces of faccharine matter were difcharged daily.

The fituation of this patient prevented me from afcertaining, with any degree of precifion, the proportion which the urine bore to the fubftances received into the fomach; but upon the whole I feel ftrongly inclined to agree with Dr.Lubbock, in fuppofing that
they will be found to correfpond *. It has, no doubt, been frequently obferved, that the urine has exceeded the liquid part of the diet; but in thefe cafes it muft be remembered, that the morbid increafe of the appetite will caufe an unufual quantity of food to be taken, a large proportion of which always confifts of water. Except the kidney, there is indeed no obvious exit by which the contents of the ftomach can be evacuated ; the perfpiration is checked, the alvine difcharge is, in general, not increafed, and the weight of the body is daily diminifhing.

It has been difcuffed whether the fomach or the kidney be the primary feat of the difeafe; if the experiments related above be fuppofed to throw any light upon this queftion, they will tend to prove that both thefe organs are in a morbid ftate. The exceffive increafe of the appetite, accompanied with an apparent defect in the procefs of chylification, appears to demonftrate, that fome difeafe exifis in the digeftive organs, to which the emaciation may be referred. But we have alfo found that the peculiar matter which is ela-

* Med. and Phyf. Journ. V. 5. p. 59.

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borated by the kidney, is fecreted in twice its ufual quantity, a circumftance from which we are induced to conclude, that the action of this organ is very confiderably increafed.

Notwithftanding the affertion of Dr. Lubboch *, I think it is eftablifhed upon the moft unexceptionable teftimony, that the faccharine quality of the urine is diminifhed, or deftroyed by a total abftinence from vegetable food. It this cafe it may be prefumed, that the fugar is no loager formed merely becaufe its component parts are no longer prefented to the ftomach, not from any real change in the fiate of the affimilation; fo that we can fcarcely expeßt to derive from this practice more than temporary relief. Dr. Lubboch attributes the formation of the fugar to the want of perfiration, fuppofing that the hy-dro-carbone, which would otherwife be difcharged by this fecretion, is converted into faccharine matter $\uparrow$; an hypothefis which the prefent fate of our knowledge is not fufficiently advanced to enable us either to difprove or confirm. The Englifh phyfologift will probably feel licule inclined to acquiefce in

[^20]the notions of MM. Nicolas and Gueudeville, who, after attempting to controvert the doctrines of all preceding writers, conclude, that " Le diabète eft une confomption entretenue par la déviation fpafmodique et continuelle, des fucs nutritifs non animalifés, fur l'organe urinaire *."

## CASE II.

The fecond cafe was an inftance of what has been called the diabetes infipidus, in which there was a confiderable increafe in the quantity of urine difcharged, but where the fluid contained a lefs proportion of folid matter than ordinary. The experiments which I had an opportunity of making upon this patient were but few and imperfect, but I conceived that they might not be uninterefting, as they are almoft the only ones that have been performed upon the urine of this variety of the difeafe.
W. H. aged 4I, a carter, attributes his difeafe to expofure to wet and cold in following a team, during which time he had indifferent lodging and poor diet; he feldom tafted

* Ann. de Chimie, T. 44. p. 46.
any animal food, and was in the habit of taking very large quantities of butter-milk. The difeafe commenced about 12 years ago; he is unable diftinctly to remember the particulars of his fituation at that time, but in general recollects, that he had pain and weaknefs of the loins, a cough, indifferent appetite, thirft accompanied by heat and drynefs of the fauces. The increafed flow of urine was allo perceived at the fame time, and about ten years ago, he applied to a rural practitioner, whom he calls a herb-doctor, who pointed out to him its faccharine qualities; he fays it tafted like fweetened tea. He remained for 12 months under the care of this man, who gave him large quantities of a decoction of different vegetables, a principal ingredient in which he remembers to have been hard-heads, the centaurea nigra of Linnæus. During its ufe the quantity of the urine was diminifhed and its fweetnefs deftroyed, but upon difcontinuing it, the morbid fymptoms foon returned. Since that time he has had no medical affiftance, and his complaints have remained nearly fationary, though upon the whole they are rather increafed.

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The fymptoms at prefent are, an indifferent appetite, a fenfation of heat and a gnawing pain at the ftomach, very great thirft, occafional ficknefs, particularly in the morning. He has a troublefome cough, attended with a copious expectoration of a tough, whitifh mucus; in the morning he fometimes perceives a little mixture of blood in it, and at that time it has generally a faltifh tafte. His teeth are feveral of them loofe, and his gums fore. His fkin is dry, and he has a fenfation of forenefs about the body; he feldom, if ever, perfpires, and in the night is frequently chilled. He is much diftreffed with cramps in the hands, and the lower extremities. He has occafionally had a pain in the glans penis, attended with fome degree of difficulty in voiding the urine. The refpiration appears to be laborious, and he has a degree of hufkinefs in the voice. His ftrength has been gradually declining, and he is at prefent fcarcely able to follow any employment. The general appearance is however ftout, and his complexion ruddy; the pulfe 8o, ftrong and regular.

The urine voided in the 24 hours, generally amounted to 6 or 7 quarts. It was of a pale ftraw colour, fomewhat opake, and nearly wihout
without fmell; it flightly reddened litmus. After being kept for fome days it grew more opake, and a fmall white cruft was formed at the furface, and about the edge of the fluid. It had acquired an unpleafant, but not putrid fmell ; there appeared to be no tendency to the vinous fermentation. When flowly evaporated it left a refidue of not more than $\frac{5}{5}^{\frac{1}{5}}$ part of its weight, which exhibited a granulated appearance, and exhaled an odor like that of boiled milk or curds. It attracted moifture from the atmofphere, and was ftill acid.

Ex. 1. A few grains of the extract was added to diftilled water, part of it was diffolved, but a white powder fubfided, which was about half the weight of the extract employed.

Ex. 2. A quantity of the extract was added to alcohol, the mafs became nearly white, while the fluid acquired a brownifh tinge, about $T_{T}^{T}$ part only of the mafs was diffolved.

Ex. 3. The extract was fpeedily diffolved by nitric acid, with the difengagement of nitrous gas; after the addition of feveral fucceffive portions, the acid acquired a thick confiftence and a deep yellow colour.

Ex. 4. A few drops of this nitric folution caufed a precipitate when added to diftilled water.

Ex. 5. To a mixture of equal parts of diftilled water and nitric acid an equal weight of the extract was added. A violent action. took place, the fluid affumed a brownifh colour, but the greateft part remained undiffolved. By a gentle evaporation, a brownifh mals was produced, in which no cryfalline appearance of any kind was obferved.

Ex. 6. Equal parts of the aqueous folution from No. I., and the infufion of galls produced a fmall quantity of a white, flaky precipitate.

Ex. 7. The aqueous folution produced a cnpious precipitate with the acetite of lead. This precipitate was dried, and then added to 30 times its weight of boiling water, but no perceptible folution took place, and a very fight cloud only was formed by the addition of potafh.

Thefe experiments, though in many refpects imperfect, fufficiently demonftrate that this urine differs materially from its natural ftate. The extract produced by the evaporation of healthy urine amounts to about $\frac{1}{30}$ of
its weight, and in diabetes it generally exifs in a much greater proportion, yet in this inftance the folid refidue compofed only $\frac{1}{8}$ of the weight of the fluid. From the ift experiment we learn that the phofphate of lime, which in general forms only an inconfiderable part of the refidue, in this cafe conftituted nearly $\frac{x}{2}$ of its whole weight, and from the 2 d , we may conclude that the urée which commonly amounts to ro of the whole refidue, here formed $\frac{1}{5}$ part only. This deficiency of urée is alfo confirmed by the 5 th experiment. By comparing together the ift and 2 d experiments, we may conclude that the urine contained the phofphates of foda and ammoniac in confiderable quantity ; and from the 6th, it may be inferred that it poffeffed about the ufual proportion of gelatine. From the 7 th experiment it would appear that this urine is deficient in the muriate of foda, as well as in the urée.

In order to determine whether this urine contained any faccharine matter, the nitric folution of the 3 d experiment was flowly evaporated. It was reduced to a brownifh mafs, in which, by the affiftance of a microfcope, cryftals were difcovered; fome of thefe S 4 feemed
feemed to be of a long, and others of a fquare fhape, but in both cafes they were indiftinctly formed. A quantity of the cryftals was added to lime water, and a flight precipitate confint ing of a fine white powder was immediately thrown down. After fome time another precipitate of a flocculent appearance began to be formed, which gradually fubfided. Neither of thefe appearances were obferved, when the cryftals were added to diftilled water. The brown mafs rapidly attracted the moifture of the atmofphere, and was probably in a great meafure compofed of nitrate of lime. The firft precipitate feemed evidently to depend upon the oxalic, and the fecond upon the phofphoric acid; hence we may conclude that the urine contained a minute quantity of fugar.

There are feveral particulars in this cafe which deferve attention, more particularly if we might be juftified in confidering it as a fpecimen of the ufual fate of diabetes inflpidus. It is obvious that the fluid evacuated was not merely the natural urine diluted, becaufe although there appears to have been a remarkable deficiency of the urée, and probably alfo of the muriate falts, the phofphates were found to exift in perhaps a greater pro-
portion than ordinary. This cafe of diabetes differs from the ufual form of the difeafe, in the lofs of appetite which appears to have taken place from its commencement ; but the moft remarkable circumftance is the length of time which the difeafe fubfinted, and the fpontaneous removal of the faccharine impregnation from the urine, at the fame time that its quantity was not reduced, and the health of the patient continued gradually to decline. There was in this cafe lefs emaciation than is ufually obferved, which may be afcribed partly to the chronic ftate of the difeafe, but more to the fmall quantity of folid matter, which was carried out of the fyftem by the urinary difcharge.

Liverpool, October 19, 1804.
AR TICLE XXII.

The following circular Letter having been tranfmitted to the Correfponding Members of the Medical Society, the Anfwers to the Queries are now publifhed without Alteration or Comment.

> Sir, London, May The Medical Society of London, of which you are a Correfponding Member, convinced that every medical practitioner will confider the late Epidemical Diforder, commonly termed the Influenza, as an object peculiarly worthy of inveftigation, and wifhing to collect for publication a complete hiftory of the difeafe, earneflly requeft your Anfwer to all or any of the fubjoined Queftions.

1. Has any Epidemical Diforder appeared in your neighbourhood during the prefent fpring, which differed from the ufual difeafes of the feafon ?
2. On what day did it firft thew itfelf?
3. When was it at its greateft height?
4. When did it difappear?
5. What were its fymptoms, particularly the moft urgent?
6. Did they vary much in different individuals? Were they fimilar in members of the fame family, in thofe of equal age, of fimilar conflitutions, and of different fexes?
7. Has it been fatal when apparently unconnected with other dif afes?
8. What proportion of fatality occurred ?
9. What ages, claffes, or conftitutions, were moft obnoxious to the difeale, and felt it moft feverely or fatally?
10. Was the proportion of males or females greateft?
II. What did you find the beft mode of treatment?
11. What effects followed bleeding, general or local, emetics, purgatives, opiates, fudorifics, blifters, or other remedies; and in what circumftances were they employed ?
12. What was the proper diet?
13. What temperature was the moft beneficial?

15. What

15. What was the ufual mode of its termination?
16. Were relapfes frequent?
17. Were the fymptoms of relapfes fimilar to the original attach, and were they more or kefs fevere?
18. Did convalefcents recover fpeedily?
19. In what fate were they left by the difcafe?
20. What was the beft treatment during convalefcence?
21. What were the concomitant diforders which appeared to combine with the epidemic, and were they fevere and fatal ?
22. Has the prefent influenza appeared to you to be contagious or not, and on what facts did you ground your opinion?
23. In manufactories, fchools, public infitutions, and other collections of people, how did it appear, and what was its progrefs?
24. Were a number of perfons frequently affected in the fame houfe, at the fame period, or in fucceffion; and at what intervals?
25. What are the fites, and other local circumftances of the places in which you have made your obfervations?
26. To
27. To what winds are they particularly expofed?
28. What places in your neighbourhood were affected with the difeafe previous to that in which you refide, and what immediately afterwards; and has the progrefs of the Epidenic in thefe cafes appeared to be in any degree regulated by intercourfe?
29. What meteorological remarks have you made previoully to the rife, and during the progrefs and decline of the epidemic?
30. Have you remarked whether the progrefs of the difeafe has in any degree followed the direction of the wind; and if this has appeared to be the cafe, car any deviations from fuch uniformity of progrefs be accounted for from any remarkable intercourfe between different places?
31. Did you fee any of the former infinenzas, and what are the analogies of the prefent with them?
32. Previoufly to, or during the prevalence of the difeafe, did you notice any epizoütic complaint?
33. What other remarks have you made on this fubject, which are not included under the prefent Queries?

The

The Society being defirous to afcertain whether the Epidemic be contagious or not, and to collect fuch meteorological obfervations as will throw light on the natural, as well as the medical hiftory of the difeafe, particularly requeft your attention to thefe objects.

They do not mean to limit the anfwers of their correfpondents to their own obfervations, but will receive with pleafure any information relating to the above queftions, which their correfponding members may have procured, and which they conccive authentic and valuable.

Their Lordhips the Poit-mafter General, on an application made to them, confidering it as a matter interefting to the community, and in the hope of the information obtained proving eventually of benefit to the human race, have, with the utmof liberality, confented, that the correfpondence upon the fpecified objects of the foregoing queries fhall be carried on free of expence, provided that the replies to them be fent addreflied to the Medical Society of London, in letters not Sealed, under cover to Francis Freeling, Ffq. London.

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\text { MEDICAL SOCIETY OF LONDON. } 271
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It follows of nece $\sqrt{2} t y$, that the correfpondence to be fo franked, mufi be fricily confined to the fubject of the queries.

$$
\begin{aligned}
& \text { Signed by order of the Society, } \\
& \text { Secretary. }
\end{aligned}
$$

Medical Society Houfe, Bolt Court, Fleet Street.
ARTICLE XXIII.

The following is the Anfwer of Dr. Luke M'Can, of Armagh,' in the North of Ireland. August 6, 1803 .

1. Almof every acute diforder combined with catarrhal affection that appeared in this country fince January laft, went by the name of Influenza.

2 and 3. Phyficians were feldom applied to before the diforder came to its height, it generally commenced as a common cold or catarrh, and was confidered as fuch for fome days, fewer or more, till an additional frefh cold, a wetting, or other caufe, rendered it more ferious, and obliged the patient to take to his bed.
4. In fome fooner, in others later, according to its degree, the form or variety it affumed, the difeafe it was combined with, the conftitution, predifpofition of the patient, and the manner it had been treated ; in forme cafes when vigoroully attacked in its commence-
ment with an active medicine that operated brifkly in every direction, quâ data porta, it was cut fhort, and as it were choaked in its cradle, at leart as to its febrile fymptoms ; in fome it was a bufinefs of fome weeks, with the beft care; I have heard of fome who laboured under it for months paft, and ftill linger under iss confequences. It has not left the country yet, June 30.
5. Where it appeared merely as Influenza, the fymptoms were a confuled uneafinefs of the head, heavinefs and laffitude of the eyes; the parts about the eyes, and in fome the whole countenance fwelled with a bloated puffy appearance ; a 月orid ruddy colour, inflammation, and in fome ulceration of the internal fauces; generally a relaxation of the uvula ; cough, with a fenfe of, as fome expreffed it, an uneafy rawnefs, others a burning heat down the cheft. This was the fimpleft form of the difeafe; the moft urgent fymptoms were thofe that alarmingly affected the head, lungs, and bowels.
6. Varied in different individuals, fymptoms were generally of the fame fpecies in members of fimilar conftitution of the fame family, but

> Vos. VI.
fometimes of different degrees of feverity; the young, plethoric, and robult of the male fex, were the mof feverely affected with thoracic and pneumonic affections; the female fex with affections of the abdominal vifcera, bilious and obftinate conflipations of the bowels, which, if not removed, the fick became yellow, and died in great diftrefs.
7. Scarce any died of fimple catarrhal Influenza, unconnected with fome other concomitant of the difeafe.
3. Very few of thofe who had timely regular treatment died in this place; I loft none of thofe whom I had the timely management of; I was called to fome in the extremity of a pneumonic affection of the difeafe, whom I could not recover. By the report of the clergy of all denominations, in the remote parts of this county, there has been a great fatality in their refpective congregations; I have been told by a Roman Catholic Prieft, ten miles diftant from Armagh, whom I had been called to fee ill of the difeafe, about the latter end of June, that fcarce a day clapfed, for fome time previous, without four, five, or more deaths of his congregation; I have had fimilar reports
from Proteftant clergymen, I believe, however, that the greater part of them died vithout medical affiftance.
g. Individuals of all ages, claffes, and conftitutions were obnoxious to it, and individuals of all claffes and ranks, from the lord and firft commoner down to the beggar. Lord Ennifkillen, and Thomas Connolly Efq. are faid to have died of it. The young, ftrong and plethoric, fuffered moft from exquifite pleurify and peripneumony; the elderly, plethoric and afthmatic, from apoplectic and pneumonic affections, both true and fpurious; the weak, languid, and relaxed from low fevers; the concomitant feemed to be connected with the conftitutional predifpofition of the patient, and made its greateft impreffion on the moft irritable and fufceptible organ, or part of the fyitem.
10. According as they were conflitutionally predifpofed, and expofed to the exciting caufe, of married people, I think I have obferved more hufbands than wives ill of it.
II. I cndeavoured to adapt the treatment to the exigency of the fymptoms ; in afections of the head and thorax, when the degree of feyer and ftate of the pulfe indicated, or even
feemed to admit it, I bled freely and repeatedly, and always with advantage ; the flate of the pulfe did not always correfpond with the degree of pain; in thofe cafes, fometimes local blood-letting, and fometimes a blifter was employed for relief; fomerimes a fevere pain continued low in the left fide after blood-letting and bliftering had been tried; this was imputed to an affecion of the fpleen, congeftion in the colon, or other vifceral affection, and was moft effectually relieved by active cathartics; evacuante, and purgatives, were generally continued, and emetics repeated, in fome cafes, during the courfe of the difeafe. In catarrhal cafes, with cough and fever, I employed mucilaginous and nitrous medicines, combined with antimonials; for clderly people, labouring with pulmonary infarction, difficult and fcant expectoration of tough, vifcid mucus, along with blood-letting and bliftering, where judged neceffary, I employed the more acrid expectorants; ammoniac, afafcetida, fquills, fal cornu cervi, feneka, \&cc. in fuch forms as the patient liked beft, fometimes combined with kermes mineral, tartar emetic, or antimonial powder. In congeftion and conftipations of the bowels, to which there was a general tendency, employed

I employed the more active purgatives, extractun catharticum with calomel, which, along with removing conftipation, alfo removed hiccup and yellownefs: every variety and concomitant of the difeafe was connected with bile, and required confiderable attention to the fate of the bowels.
12. Nearly anfwered in the preceding; opium was feldom employed, except to mitigate cough after the inflammatory fage of the diforder had been fubdued; it anfwered that intention better with young, than with elderly people labouring under pulmonary infarction, with fcant expectoration of tough, vifcid mucus.
13. I adopted cooling, diluting, fimple diet.
14. That temperature which neither excited cough by its cold, nor increafed fever by its heat : 55 of Farenheit might be a proper temperature, but in general it was endeavoured to regulate the temperature by the patient's feelings.
15. Simple Influenza, unconnected with other difeafes, fometimes terminated by perfipiration, from which the fick in general expreffed relief, fometiones in fpontaneous diar-
rhoea, but after the feverifh fymptoms vanilhed in that way, a cough, want of appetite, with a bad tafte in the mouth often remained behind, which were removed by an emetic, and fuitable remedies for the cough. When combined with exquifite pleurify, or peripneumony, it required medical affiftance; its refolution was expedited by blood-letiing, general and local bliftering, mucilaginous and acrid expectorants, attenuating, diluting regimen, \&cc. in cafes of inflammatory pneumonic affe $2 i o n$, where adequate blood-letting had not been employed, the difeafe fometimes terminated in vomica, and often in death.
16. Very frequent.
17. Similar, in fome cafes lefs fevere, and required lefs confinement, in fome cafes tardy and obftinate enough.
18. Very flowly, and were long in recovering the ability of their ufual exertions.
19. In a ftate of debility, and inertnefs of the facultics and exertions of both body and mind.
20. A moderately generous regimen, light perfpirable diet, paying due attention to the ftate of the bowels, preventing and removing coftivenefs, guarding againft cold, the hurtful influence
influence of which convalefcents were very fufceptible.
21. Apoplexy, hemiplegia, paralyfis, at leaft inertnefs of the lower extremities, pleurify, prieumony, both true and fpurious, acute rheumatifm, bilious remittent and low fevers, fometimes with petechio, fevere and fatal in many inftances.
22. Many individuals have taken the diforder without any intercourfe with the fick; I have feen fome inftances of one individual in a full family ill of the difeafe, and all the reft efcape; I have known wives fleep with their difordered hufbands without being infected, and hufbands fleep with their fick wives with equal impunity; I cannot fay that any fickened by immediate contagion or intercourle with the fick, but as they happened to be conftitutionally predifpofed, and incurred, or were expofed to the exciting caufe, which, when clofely inveftigated, could in general be traced up to fome evident caufe, as expofure to cold air, change of bed, or damp bed, laying afide heavy cloaths, and putting lighter, over-heating and getting cold afterwards, fatigue, a wetting, or fome fuch caufe ; the hurtful im-
preffion of cold, however incurred, was the moft general occafional caufe, both of the primary difeafe and fubfequent relapfe. I cannot fay that human effluvia had any effect in propagating or multiplying the epidemic ; many more of the inhabitants of the moft remote and thinly peopled parts of the country, in proportion to their numbers, were ill of the epidemic, and fuffered a much greater fatality from it, than the inhabitants of the moll por pulous ftrecte, and clofert lanes and alleys.
23. In general, collections of people, who were immured or inacceffible to the inclemency or viciflitudes of the weather, efeaped the difeafe better than thole who were at large and expofed to its hurful inflience: the Influenza was not known in the jail or county infirmary of this place.-Of upwards of $4 n 0$ men of the i 8 th regiment, who lived in their barracks here for ten months paft, paraded, meffed and nept promifcuounly, but were kept to regular hours, no more than eight of them had the Influenza, while at the fame time, upwards of ten times that number of the county militia reyiment, that was recruiting here for about three months paft, billetted about the country,
country, ftraggling, and expofed to all weathere, got ill of the difeafe; their furgeons affured me they could not confider it contagious from intercourfe with the fick. Children at a fchool time of life, from fix or feren to twelve or thirteen years of age, in general had the difeafe very flighty, very few of that age died of it; I have heard of fome younger children who had a fore throat with hoarfenefs, and died fuddenly of fuffocation. Of upwards of feventy boarders of the Rev. Dr. Carpendale's fchonl here, who all paffed the day in fchool together, meffed and played promifcuoully, continued to fleep in their refpective dormitories, without any removal or feparation, twenty five had the influenza fo flightly as not to require medical affiftance, and all in fucceffion. Some at the interval of one, two, and three days, fome after ten days or a fortnight fince any had been ill of it. Dr. Carpendale could not obferve that thofe who flept in beds the moft contiguous to the fick, were more difpofed to take the difeafe, than thofe who flept the moft remote from them.

After an interval of five weeks fince either $f_{\text {chool boy or other individual of Dr. Car- }}$ pendale's family had the Influenza, one boy
boy of twelve years of age was taken ill on the 17th of June; he got an emetic and was purged with Ching's lozenges, on the fufpicion of worms, without relief, before any medical aid had been applied to. I was called to fee him on the $1 g^{\text {th }}$; he thein complained of a cough with difficulty of breathing, fore throat, a rawnefs down his cheft, and a fevere pain in his right fide, was hot and feverifh; on inquiring into the caufe of his illnefs, was told he had got a wetting, and fat in his wet cloaths to conceal his having been out ; he was ordered to lofe feven ounces of blood, and if the pain of his fide fhould not be relieved by the blood-letting to have a biifter immediately applied to it, and was put on a laxative faline mixture; he faid the pain of his fide and difficulty of breathing were intirely removed by the blood-letting, the laxative mixture brought away nine or ten bilious ftools. On feeing him next day, he told me be had no complaint, but the cough and forenefs down his cheft, which were ftill troublefome to him; they were much relieved by mucilaginous oily mixture with elixir paregoric ; he continued a profperous convalefcent for two days longer, then got out of bed and would not flay behind
his brothers, who were going home for the vacation; I heard lince be had been rather flow in his recovery after he got home, but did not take to his bed.

Of ten little girls of the fame ward, of a female charter fchool here, who lived, mefled, and fat at their refpective employments together, four had the Influenza, all in fucceffron; of two fifters one was laid down as the other was getting up; they got but little medicine, fome phyfic, and antimonial wine that the apothecary of the houfe gave them. In another ward of the fame charter fchool, ten of fixteen took all ill together, but the hair had been cut off them all the day before : the miftrefs of the fmaller ward, who had been an ailing fickly woman, was feven days ferioully ill of the difeafe; the miftrefs of the larger ward, who is a ftrong healthy woman, efcaped it hitherto.
24. I have feen one individual of a full family, and no more, ill of the difeafe ; have feen a parent and two or three children down together, and the cther parent keep free of the difeafe; they fickened in fucceffion, fome at one, two, and three days interval, fome at the interval of a week and longer.
25. The
25. The city of Armagh, lat. 54, 21, long. $6,3^{6}, 3^{0}$, is buitt on an elevaled fituation, upwards of 300 feet above the level of the fea; the country about it is hilly, allo the bogrs and marhes well drained, and converted into arable ground, meadow, and good pafturage; fo that dyfentery is never an endemic or local difcafe, and intermittents are fcarcely known now among us.
26. To the S.S. W. N. W. N. and N.E. moftly fince the epidemic appeared here.

27 . The firlt place I faw the difeafe was at Tanderagee, about ten miles fouth-eaft of Armagh, about the laiter end of January i 803 . A lady and three of her children got ill of it, they took it in fucceffion.

The next place was about a mile due fouth of Armagh, much about the fame time, or a very few day's afterwards, the hufband and father of a family, having over-heated himfelf at work, and gone to bed as he thought well enough, awoke with a fevere cough, bursing pain down his cheft, and violent pain in his left fide, which killed him in a fhort time. There was no intercourfe between him and the family of 'Tanderagee. It may be obferved that the mortality attending the difeafe, com-
bined with pain in the left fide and top of the left fhoulder, attended with fever and pneumonic affecion, impreffed fuch defpair on the minds of many of the common people, that when thefe fymptoms met in the fame perfon, he was in many inftances abandoned to his fate, without any attempt or endeavour for his recovery ; but even thefe cafes were got the better of, by an adequate blood-letting, not afcertained by a limited quantity, or number of ounces, but by bleeding freely without interruption, till there was a remifion of pain, and facility of refpiration.
28. I made no metenrological remarks previous to the epidemic, kept no regifter of the weather, but recollect the fummer 1802 was cold and wet, a bad hay harveft, the beginring of autumn was remarkable for heavy sains and floods, continued fo till about the 20th of September, the weather then became feafonably temperate, and continued fo till the latter end of November; the prior half of December was remarkable for long continued rains and great floods; the third week temperate with a mild froft of three days flanding, fucceeded, during the courfe of the following week, by tempeftuous windy weather,
with fevere, heavy, long continued rain, oscafioning as great inundations here, as remembered by any man then living.
1803. January, weather moderate for the feafon, with four days froft, fcarce any fnow.

February, weather rather mild for the feafon, froft one day, $5^{\text {th }}$, only a few fhowers of fnow on the 18 th. - March, weather variable, but tolerable for the feafon, two days hoar froft, no fnow.-April, weather the firt eight days fhowery wet, and windy; from $S$ to 17 remarkably fine warm weather, the wind was due fouth, the five beft of thofe days; from the 17 th to the end, the weather was cold and wet, with gales and fudden gufts of wind, fhowers of hail, fleet and fnow, which was confpicuous for fome days on the diftant mountains; more hail, fleet and fnow fell in the laft fortright of this month than in the three preceding. The wind was due weft fouth-weft, N. and N. W., during thefe 17 days; the epidemic was more rife and fatal here during this month, May and beginning of June, than any time before or fince,

May, much rain and high wind for the firft four days, from 4 th to 9 th mild Ceafon-
able weather, from 9 th to 25 th for the moft part cold, cloudy, difagreeable weather, from that to the end, mixed moin weather, with fome thunder and lightning. On the 2gth June, cold, wet, gloomy, unpleafant fummer weather till after the 20th; feafonable good weather from that to the end ; diforder much abated in frequency, though there were fill fome individuals and families ill of it; it now affumed more of a typhoid form, and fatal to feveral.
29. I believe it came here in a fouthern direction ; heard of its being rife in Cork and Dublin, previous to its coming here; it made its firft appearance in this county in the latter end of January 1803 ; the wind was in a S.E. direction the greater part of that month; the epidemic was moft rife and fatal in the month of April; the prevalent winds then were the S. W.S., W. and S. W., the deviations from that progrefs have not occurred to me, or for want of due attention have efcaped me.
30. I recollect the Influenza of the latter end of 1775 , and beginning of 1776 ; alfo the Influenza of 1782 and 1800 , they were mere catarrhal and pneumonic affections with
fome
fome degree of fever, but not combined with other diforders.
3. Not clear in the meaning of the word epizöntic, if it does nut imply brute animals ; if fo, I recollect that horfes had a diforder fimilar to the Influenza, in the fpring of 1802, attended with fevere hard cough, lab, sious difficult refpiration, fever and great proftration of ftrength; I had two of my own fo affealed, they were plentifully blooded, kept on foft mafhes, got a bail compofed of aloes, fal polychreft, extractum glycyrinyza ā̄ $\bar{z}$ is. calomel, kermes mineral cā $3 i$, twice a week, of $\bar{j}$ is ritre and grana $\times$ cf tartar cmetic, three times a-day, the days on which the purging ball was not given; it terminated favourably by a plentiful difcharge by the no!trils ; with fome it terminated in farcin, and heart flangles, fo called, and fome it killech. Calves were very difficultly reared then, and many of them died in the attempt; the bloody murrain prevailed much among hurned cattle this fpring and fummer, and many of them have died of it, calves alfo die in the rearing.
32. The moft interefting remark, if not to the faculty, at leaft to the community, is that the epidemic has very much abated; fince the fummer follice, it feemed to be in fome mea-
fure fucceeded by the meafles and fmall-pox, which, however, were not very general nor of long continuance, they feem to have taken their flight along with the Influenza; I have not feen or heard of either meafles or fmall-pox thefe three weeks paft; I have feen but one, ferious cafe of Influenza during the month of July, it was fince the meafles and fmall-pors made their exit; it is hoped it has now made its exit alfo, not to return again with its late concomitants.
ARTICLE XXIV.

From Dr. ROBERT PERCIVAL, Dublir.
r. None but the influenza.
2. Say month, and I anfwer that in Jantiary laft, cafes occurred like influenza but fporadically.
3. In the midet of April.
4. Not altogether yet cealed, May 28 .
5. Cough, oppreffion of cheft, vertigo, pain of back and limbs, pain of face and jaws, noife of ears and deafnefs, extreme weakne/s and lownefs, even fainting, without ferious confequence.
6. Given the conffitution, \&ec. fufficiently fimilar; varied in incividuals.

## 7. No.

8. Anfwered.
9. Bilious.
10. Equal.
ir. Autimonial, fometimes mercurial evacuants at firf, thin mift. camphor. blifters, expeetorants, gentle fudorifics.
11. Sudorifics were injurious without previous evacuation of primæ viæ.
12. Not too low.
13. Moderate.
14. Imperfect, i.c. without crifis.
15. Yes.
16. Yes, but often more fevere.
17. No.
18. Weak.
19. Mens hilaris, requies, moderata-dieta.
20. Bilious.
21. Contagious, for it travelled from place to place, prevailed in London before it came to Dublin, is now epidernic and violent in fome country parts of Ireland.
22. No experience of my own, am told 60 boys (nearly the whole number) at Ennifn killen fchool, were ill at once.
23. Yes, at the fame time, fo that in fome houfes the fick were left unattended.
24. Thofe of Dublin are fufficiently known.
25. Dublin has mountains to the fouth, but at fuch a diftance as fcarcely to thelter it.
26. Anfwered in part, can fay no more from certain information.

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\mathrm{U}_{2} \text { 28. Winds }
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28. Winds harfh and dry (N. W. principally) fince January, no equinoctial form, little or no rain, no genial fpring weather till fince 25 th May, when heavy rain began with S. W. wind, a dry and backward fpring, on the $24^{\text {th }}$ May the leaves of the platanus, walnut, acacia, in a garden one mile to the fouth of Dublin, almoft inconfpicuous.
29. Influenza prevailed at Cork before Dublin.
30. Yes in 1782 , particularly in London, and fince in Dublin-weaknefs and lownefs the moft characteriftic fymptom.
31. Lately dogs have had fore eyes. I believe generally.
32. None.
ARTICLE XXV.

From Dr. LONGFIELD, of Cork.

$$
\text { June } 30,1803 .
$$

We had no prevailing epidemic in this city, or the adjacent country, during the fpring. On the contrary, the year in general was very healthy, previoufly to the appearance of the Influenza.

By our obfervations the Influenza made its appearance about the 20 th of March, was at its height about the 2 gth April, and difappeared about the 20th May ; fome few cafes; however, were feen in the beginning of June.

It commenced with coldnefs, Thivering, violent pains in the forehead and acrofs the back and cheft; extending down the thighs, with a fenfe of coldnefs along the fine, remarkable and unufual debility, with great reftleffnefs, in many the weaknefs was fo great as to produce fainting; particular and frange confufion of the head, at times inA. 1 U 3 crealing
creafing to delirium, defluxion from the eyes and nofe with fwelling of the palpebræ; very diftreffing and frequent cough, with little expectoration, fome cafes, however, occurred in which there was no cough, but a general rheumatic affection; a great tendency to fweating was a frequent fymptom. Tongue had a peculiar creamy appearance, urine moftly turbid, and many patients obferved an unufual high colour of that fecretion, refembling what is obferved in affections of the liver. Pulfe commonly about 100 , but in fome it reached 120; in many inftances the fever was exceedingly high for two or three days; a pain, referred to the ftnmach, was in many a very diftreffing and depreffing fymptom, as was alfo an uneafinefs in the bowels; about the fourth day the febrile fymptoms generally abated, but the cough continued to harals much, with lofs of appetite, languor and general debility, with great emaciation.

The fymptoms were nearly the fame in all, differing only in degree and violence, making allowance for conftitutional complaints, which were very commonly aggravated to a confiderable degree; thofe who fuffered moft
from
from its attack were fuch as laboured under pulmonic complaints, and to many of thefe it proved fatal.

The proportion of thefe who died was very fmall, when unconnected with any other confitutional complaint. The old and infirm felt it very feverely; as did children at the breaf, many of whom died. It feemed to attack equally males and females.

As to the treatment-Antimonials, for the firft two or three days, were employed with confiderable benefit in leffening the feverifh ftate, which feemed for that period to partake very much of an inflammatory nature; and confequently did not (as far as our obfervation went) bear opium, a remedy which we have repeatedly found prejudicial in coughs, where there was any tendency to an inflammatory ftate.-Bleeding was in moft inftances inadmiffible, in a very few cafes, however, it was practifed with advantage.-Purgatives, in almof all cafes, were of confiderable fervice, as there appeared a great difpofition to coftivenefs. The aq. ammon. acet. was found a ufeful diaphoretic, and camphor has by fome practitioners been employed ufefully for
quieting the very great reftleffnefs attendant on this diforder.-Blifters we feldom experienced much benefit from. A low, diluting diet was moft proper in the firft fage of the Influenza; but towards the decline of the feverith period, that of a more nourifhing kind, with wine, was both ufeful and neceffary, from the great debility that enfued. The moft fuitable temperature was that of $63^{\circ}$ - As to its termination nothing critical was obfervable. Relapfes were very frequent, particularly when the weather became cold, which happened from about the gth April to the 18 th, when the thermometer fell to $4^{\circ}$; convalefcents recovered very flowly, and relapfes common on expofure to cold air.

It appeared to us to be very contagious, as fome boarding fchools in the country remained free, until vifited by fome perfon who brought it from the neighbouring towns; its progrefs was evidently traced from England to Waterford, where it raged before it reached us. Some fchools which had little or no communication with large towns efcaped. It did not extend much beyond 25 miles from this city to the fouth-weft; in moft inftances it
went through boarding fchools and manufactures, but progreffively and gradually. Three phyficians who attend the houfe of recovery in this city were almof immediately attacked after vifiting a patient ill of this epidemic, in that charity. This city lies very low, and is expofed to the wefterly winds, which prevail for nearly 9 months in the year. The progrefs of the difeafe was evidently marked by intercourfe; the wind was moflly fouth-weft during March, and the thermometer $56^{\circ}$, in April it changed to north-weft, when the thermometer fell to $48^{\circ}$, at which time the Influenza became moft violent and general.

The former Influenzas, as far as we remember, were by no means fo violent, nor attended with fuch debility and languor.

Many horles, during the prevalence of this diforder, were attacked with ophthalmia and cough.

We have every reafon to believe that this diforder did not fpread in the direction of the wind, but according to the intercourfe with different places where it raged at the time.

Sir, Cork, June 30, 1803.
You will p'eare to prefent the above to the M dical Society; and at the fame time to exprefs cur regret at not being able fonner to canifly with their requet, on the fubjear of the late epidemic, conveyed through your letter; but as we wifhed to render our communications more worthy their perufal, we endeavoured to collect from the practitioners refident here the refult of their obfervations; fuch we have been favoured with, particularly from Drs. Callaman and Barry, but find that the uniform appearance of this epidemic has not allowed thefe gentlemen to give much more than a repetition of our own obfervations. We are, fir, with much refpect, Your very humble fervants, JOHN LONGFIELD. JAMES BENNETT.

$$
\begin{gathered}
\text { AR TIC L E XXVI. } \\
\text { From Mr. EVANS, of Rofs, Ireland. } \\
\text { AuGUST 25, } 1803 \text {. }
\end{gathered}
$$

In anfwer to the queftions forwarded to me fome time fince, I beg leave to inform you that an epidemical diforder appeared in this neighbourhood during the fpring, which differed from the ufual catarrhal affections of the feafon, only in as much as it was attended with an unufual degree of fever, and followed by more than ordinary proftration of ftrength.

## A R T I CLE XXVII.

From Dr. JAMES FLINT, Profefior of Medicine.

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\text { St. Andrew's, June 6, } 1803:
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I confider myfelf to be much honoured by the appointment of the Medical Society of London, to give all the information in my power concerning the epidemical diforder that is now fo generally prevalent, named Influenza. The philanthropic motive of the inquiry deferves much praife, and it would give me a moft fenfible pleafure, if the few obfervations I have made could be of any ufe, which I now moft readily relate.

The Irfluenza made its appearance in St. Andrew's and its vicinity, about the middle of laft April, and has not yet ceafed.

The fymptoms were a great proftration of frength, a fenfation of cold, pains in the legs and back, head-ach, thirf, faintuefs, and
fome actually fainted away, and continued cold fo long as to give concern for the event ; the pulfe was quick and fmall, a total lofs of appetite for food, with vomiting, pain of the ftomach, ficknefs and coftivenefs, and fometimes gripes and diarrhæa. They often complained of alternate hot and cold fits, and thefe were foon fucceeded by inflammation of the throat, pains in the breaft, and difficulty of breathing, and in a few inftances a pleuritic ftitch, and hard full pulfe were prefent.

It fometimes began with a fpitting of blood and epiftaxis. It does not appear to me to be contagious, for although whole families were attacked by it, yet a few individuals of many families only fuffered.

The weather has been very inconftant, the alternate extremes of cold and heat have been frequent, the wind, during the fpring, the month of May and firft week of June, in St.'Andrew's, is commonly from the eaft and north-eaft. The extremes of heat and cold have been unufual this feafon.

The Influenza has not been fatal to thofe who previoufly enjoyed good health, but it
has carried off feveral who were labouring under phthifis, when it attacked them.

It appears to me to have fome refemblance to the $\ln f l u e n z a$ that appeared about 20 years ago, but the fymptoms are now more fevere than they were then.

I did not obferve any epizüotic complaint, either during the prevalence of the epidemic, or previoufly to it.

My treatment of this catarrhal affection was various according to the variety of the indications.

In general I recommended abftinence froms animal food, chicken water and beef tea excepted. The chicken was freed from the fkin upon account of the oil it contains, and lean beef fteeped in water haif an hour and then that water thrown away, which wafhes off the blood and makes the broth much lighter. Bread in any fhape was advifed, and diluting drinks, with a moderate quantity of wine, more or lefs according to the degree of debility.

The ficknefs was always relieved by a gentle emetic, fometimes a cupful of frong green tea proved an ufeful and gentle puke.

In the cafe of gripes and diarrhæa, mild obtundents, as hydrogala, an infufion of rad. Altbæ and Liq. Rad. Rhæi. and gentle opiates, h. f. were ufeful.

I feldom employed the lancet, except in the cafes of difficulty of breathing and great pain, when the pulfe was hard and full, and urine very red. In which cafes v. f. gave great relief, which, with the appearance of the buffy coat on the blood, fhewed the propriety of the meafure. I fometimes applied leeches to the throat and breaft, with advantage, when the indications for general bleeding were not fo obvious.

Frequent immerfion of the feet and hands in tepid water fuited every cafe. When the patient was very weak, wine and water was given during the immerfion. The prometion of a diaphorefis was of great ufe, by faline draughts, and diluents.

The coftivenefs was beft removed by injections and gentle lazatives, as manna and cremor. tartar.

Blifters always relieved the pain in the throat and breaft. I employed them without hefitation, becaufe I faw them do great good.

It was neceffary to command the cough by gentle opiates, as the elix. paregoric. of the Pharmac. Edinenfis, fyr. Diacodii, and Sydenham's tinct. opij. I never faw any harm arife from opiates, when properly adminiftered.

The recovery of the convalefcents was affifted by a more generous diet, to which they gradually returned.

In the way of medicine, tonics, as Pulv. Cinchon. Rubigo ferri mixed with Pulv. Colomb. Tinct. Martis, with gentle exercife in the open air when the weather permitted, foon reftored the fick to their wonted health.

The recovery of one female patient, who loft a good deal of blood by a hæmorrhage from the nofe, was very flow indeed, and gave me great concern for the event.

This made me very cautious in emploving the lancet, unlefs when the indications for it were very evident. I am with every good wifh for the fuccefs of this laudable undertaking, \&c.

## A R T I CLE XXVIII.

From Dr. JOSHUA DIXON, Whitehaven.

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\text { JUNE } 17,1803 .
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1. During the fpring months a difeafe of a mixed inflammatory and catarrhal nature prevailed; which, from its univerfality, was juftly ftiled an Influenza.
2. It was firft noticed in the 'month of March. Applications for relief were made at the Difpenfary upon the Ift, but it did not engage the attention of private practitioners before the I 3 th.
3. It was moft generally prevalent from the 15 th of April to the ift of May.
4. It did not fubfide gradually, but almoft immediately difappeared on or about the 30 th of May.
5. The fymptoms varied in different patients, but the general and moft powerful were languor and laffitude, affecting the whole fyftem. Coldnefs and fhivering, which were fucceeded by confiderable heat and exceffive Vol. VI. X per-
perfiration ; pains in the limbs and head, and frequent in the fide or lumbar region; flight delirium and urgent irritation to cough, with moderate expectoration. The following fymptoms fometimes occurred. Watery difcharges from the eyes and nofe; a fenfe of forenefs in the fauces, extending down the traches, but not attended with inflammation or ulceration. Naufea and vomiting, with a conltipated fate of bowels; oppreffive confriction at the chef. The pulfe was rarely very frequent, though for the moft part full and tenfe. It always became foft, and the fymptoms were fenfibly relieved by a profufe perfpiration. Urine of an high amber colour, depofiting a copious lateritious fediment. The dejection of mind could not be accounted for, as the fymptoms indicated the moft favourable event. The intermitting nature of this difeafe was obferved in feveral infances. When the patient fuppofed himfelf perfectly well, the fymproms would unexpectedly recur with redoubled violence.
6. The appearance of the difeafe was confiderably diverfified in the individuals who fuffered it. In fome it affumed a purely ca-
tarrhal form, whilf in others the fymptoms were thofe of general fever, with an inflammatory determination to the head. The fame variety occurred in the members of families, whatever was their age, conftitution, or fex.
7. As a fingle folitary difeafe it was never known to be fatal in this country. The only apprehenfion of danger arofe from its exciting the fymptoms of thofe difeales and infirmities to which the patient was predifpofed; and to this caufe may be imputed the deaths of feveral confumptive, afthmatic, aged and debilitated people.
8. Anfwered in No. 7.
9. No age, clafs, or conftitution was exempt from this diforder. The inhabitants, however, of high fituations, and thofe who had arrived at that period of life in which a tendency to confumption is obferved, and whofe conflitution had been weakened by previous difeafe, were moft liable to fuffer its fevere attack. Low and damp fituations were, in a great meafure, free from it.
10. Very uncertain.-The proportion of females was greater than that of males when it firft appeared, but afterwards vice verfa.

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\mathrm{X}_{2} \text { II. Almoft }
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11. Almof univerfally the beft, and frequently the only mode of treatment, was that of employing a frict antiphlogific regimen. Plentiful dilution, with mild articles, by promoting a moderate and equable fate of perfpiration, not only relieved the prefent fymptoms, but effectually prevented their future recurrence. The bowels were always kept more than naturally open, and frequently an active purgative was proper.

Upon the firft attack of the difeafe, if the fymptoms became in the leaft violent, an emetic was prefcribed: their continuance indicated the ufe of faline or antimonial fudorifics. It was frequently obferved that James's powder, or any draftic preparation of antimony, operated very powerfully upon the fomach and bowels; hence fmall dozes of Vin. Antimon. to excite flight naufea and gentle perfiration, were preferred. Weak wine-whey, or any mucilaginous beverage was alfo drank liberally to promote this latter purpofe. The irritation to cough was allayed by demulcent pectorals. The painful determination to the head was relieved by bathing the feet and legs in warm water every evening, and ap-
plying, at the fame time, cold vinegar and water to the face and forehead.
12. It never appeared neceffary to prefcribe either general or topical blecding. Se. veral judicious practitioners had employed the former with fome benefit when the local pains were violent, and except the difeafe affumed a pleuritic form, blifters have been feldom if ever neceffary. The effects of opiates were always injurious. The operation of emetics, purgatives and mild fudorifics, as has been already obferved, was ufeful when the fymptoms were active.
13. The fimpleft food was certainly the moft proper. The patient was fometimes indulged with a moderate quantity of wine in the form of whey or negus.
14. The difeafe was never fo powerful as to require any accuracy in adjufting the temperature of the air in the fick chamber. A clear circulation of it was always admitted, and in this regard the feelings of the patient were chiefly confulted.
15. Equable and gentle perfpiration obviated the purely inflammatory ftate of the difeafe, and moderate, eafy expectoration removed the pectoral fymptoms.
16. This
16. This difeafe very rarely recurred in a powerful degree, except from imprudence in the conduct of the patient. Expofure to cold, or any active exertion when recovering, generally produced this effect. Debilitated conftitutions fuffered moft from this difeafe.
17. The fymptoms of fuch repeated attacks were not materially different from thofe of the primary difeafe; but were, for the moft part, much more fevere; and a confiderable length of time was required for the perfect recovery of the patient.
18. Excepting under the circumftances noted at Query 16, or where any conftitutional infirmity occurred, the convalefcent fate was of fhort duration.
19. The effects of this difeafe were not peculiar. General debility, pain in the head, and irritation to cough, were the mof remarkable. It was obferved that convalefcents were fometimes liable to fuffer chronic diforders.
20. A nutritive diet was directed with wine; and fimple bitters, as tonics, were the only medicines neceffary. The bark, in any form, was never beneficial, but always hurfful.
21. No other epidemic prevailed at this period; nor were any difeafes combined with
it, except the confitutional difeafes of the patient, or thofe which were occafioned by imprudent conduct: and on thefe combinations, its danger principally depended.
22. The difference of opinion which prevails among practitioners as to the nature of this difeafe, and the importance of the inquiry, have induced me to collect the facts which can affift us in arriving at any degree of certainty refpecting it.

From the caufes which excited it, the fituations it firft occupied, the fate of the difeafe, and other concomitant circumftances, I am difpofed to confider it as a purely inflammatory difeafe, which has rarely, if ever, been communicated by contagion.

1. Its origin in this country can be afcribed to no other caufe than a fudden tranfition of the atmofphere, from a remarkable degree of heat and moifture, to a cold, dry, and windy fate.
2. It firf appeared, and at the fame time, in lofty or expofed northern fituations, and thefe confiderably diftant from each other.
3. It has been obferved that the appearance of purely inflammatory difeafes in this country

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X_{4} \quad \text { is }
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is almoft invariably preceded or accompanied by winds from the north or north-eaft, and that perfons expofed to thefe winds are moft liable to fuffer fuch difeafes. Their origin, therefore, has, with jufice, been imputed to the prevalence of northerly winds. And as during the continuance of the Influenza the wind was generally from the north, this circumfance is a ftrong confirmation of my opinion that the difeafe was of a purely inflammatory nature.
4. The mode of its appearance was very uncertain. Sometimes it would inftantly attack the whole of a family; at others, in irregular fucceffion, but from its progrefs we could not fufpect its contagious power. Frequently only one was affected, and the reft of the family, though conftantly attending the patient, efcaped the difeafe.
5. What forms a friking contraft between the Influenza and contagious difeafes, no predifpofition was required for its excitement: and it might have been fuppofed, that if it were really of an infectious nature, it would certainly have been communicated to a healthy perfon fleeping, during the whole courfe of
the difeafe, with one who fuffered it in the higheft degree; whereas the contrary has happened in feveral inftances.
6. The fymptoms which conftituted the difeafe were, i:l every refpect, inflammatory, affecting chiefly the head and lungs.
7. The duration of the difeafe rarely exceeded 4 days.
8. No tendency to malignant putrefeency ever took place. -
23. The difeafe was fo mild in its fymptoms, that only I 39 have been admitted to the aids of the Difpenfary. The firit patients inhabited high fituations, very remote from each other. Few cafes occurred from the beginning till the middle of March; the difeafe then became very general, and continued to prevail till the latter end of May.
24. A confiderable proportion, and frequently the whole of a large family, have been feized with this complaint at the fame time. In others again its attacks were fucceffive, but at no certain interval, and fometimes only a fingle inftance of it has occurred. Vide, No. 22-4.

25. White-

25. Whitehaven, in latitude $54^{\circ} \cdot 3^{\prime}$, longitude $3^{\circ} \cdot 30^{\prime}$. weft, is fituated remarkably low, yet from its peculiar falubrity has been ftiled the Montpelier of the north. It is fo contiguous to the fea that the tide flows up to the town. The fhore is confiderably elevated, and the foil is dry and fandy. Its ventilation is promoted by the regular conftruction of its freets, which are fpacious, and crofs each other at right angles. It has alfo the additional benefit of being connected with a large valley, which, after a circuit of four miles, communicates with the fea. It is fituated in the neighbourhood of extenfive collieries and lime kilns. In the bowels of the earth, coal, lime ftone, free-ftone, flate, and iron ore are found in great abundance.
26. Wefterly winds generally prevail in this fituation; but during the laft three months, thofe from the north or north-ealt have been moit frequent.
27. The high northern villages in this neighbourhood, diftant from each other, firft fuffered the difeafe, and it appeared foon after in Whitehaven, but the communication was
too rapid and general to juftify the opinion of its arifing from intercourfe. The fouthern fituations were the laft to experience this difeafe.
28. The influence of the lunar phafes upon the human conftitution, in producing, and modifying difeafe, has been maintained by many authors ; it may, upon this account perhaps, be not improper to remark that at the period (viz. about the 20 th of April) when the Influenza raged moft powerfully, the moon was in Perigee, or neareft to the earth. Several everings previoufly to the acceffion of this difeafe §light appearances of Aurora Borealis had been obferved.

Profeffional and other avocations have prevented me from keeping a regifter of the ftate of the barometer and thermometer.

29 It has been noticed at Query 26, that the moft prevalent winds were from the north, which circumftance accounts for the firft appearance of the difeafe, in villages fituated to the north. Intercourfe or connection with the fick had not any effect in its diffufion.
30. In comparing the Influenzas which have occurred in my remembrance fince the
year 1760, I can only very briefly obferve that in their catarrhal nature they were, in many refpects, fimilar. The late epidemic was diftinguifhed from them by its frequently affuming a more purely inflammatory type, unconnected with any pulnonic determination.
31. A difeafe called the * Black Quarter has been more than ufually prevalent this fpring amongft black cattle, in the neighbourhood of Whiteheaven, and was always fatal. Horles have alfo fuffered a night degree of catarrh.
32. Under this head I may notice the diftinction between catarrh and Influenza. Such is the fimilarity in the appearance of the fymptoms which occur in thefe difeafes, that under particular circumftances, it muft be extremely difficult to diftinguifh them. It may, however, be obferved that, the almoft univerfal prevalence of the latter, its frequently affuming the form of a gencral fever, with more or lefs of an inflammatory determination to the head, and at the fame time a perfect

- This incurable diftemper confifts in a powerful infiammation of the lower extremities, which terminates in gangrenc. The progrefs of the difeafe is very rapid, and young cattle are mof liable to it.
freedom from any pulmonic difeafe, conftitute the principal difference. In our late epidemic, the effects of the mode of treatment readily difcovered the nature of the difeafe. Febrifuge medicines relieved and recovered the patient, but oleaginous pectorals fenfibly aggravated the fymptoms.
ARTICLE XXIV.

From Dr. COLLINGWOOD, of Sunderland, Durham.

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\text { July } 30,1803 .
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Nothing gives me equal pleafure in this fate of mutation as that of communicating any ufeful hint that may elucidate medical fcience, or be beneficial to my fellow-creature -fhall briefly anfwer your queries, and occafionally venture to make a remark with deference to fo refpectable and learned a Society -fhall anfwer the Nos. regularly.

1. An epidemic prevailed here fimilar to that of autumn 1775, and fpring 1802, both of which I was extenfively employed for, and Ahall, as far as my memory can help, as my remarks are loft or miflaid, lay the outlines before you.
2. About the firft of May in this neighbourhood, later to the north, and earlier fouthward, by letters from France, fouth and weft of England.
3. and
4. and 4. June 28th. Has not totally difappeared, but where it prevails is either a relapfe, or in habits having a predifpofition to phthifis, and who feem to have that predifpofition confirmed by the Influenza.
5. Like all catarrhal affections, the head and breaft were particularly affected, the patients in general, if they gave a falfe ftep, bent their head forward or fideways, imagined, to ufe their own expreffions, that their brains were like to fall out-Deafnefs and tinnitus aurium were not alike common to all, rheumatic perfons, or that had been previoully fubject to intermittents, had a fixed pain in one of the temples, vulgarly called megrim, which, as ufual, put on remittent exacerbations-a fharp cold rheum or fluid, as clear as rockwater, run from one or both noftrils, a total want of tafte and fmell, for upward of three weeks, affected fome of my patients, quick pulfe, tightnefs acrofs the fternum, laborious refpiration, preceded by rigor and all the other leading fymptoms of pyrexia; thefe in moft cafes terminated in four days with laffitude, feeblenefs of the knees, ftiffnefs of all the joints, and great decay of Atrength.
6. Ca-
7. Catarrhal fymptoms were fimilar in all ages, though, according to different conftitutions, fome of the fymptoms were more predominant. Children, previoufly afflicted with the hooping cough, or who ftill laboured under that difeafe, had increafe of cough, difficulty of breathing, blood iffued from nofe and mouth, nor are thofe fymptoms quite gone; change of air and fituation, as ufual, has been attended with good effects, though I dare feldom recommend cold bathing, as it may be prefumed that fome of the nobler parts are affected.
8. It is no eafy matter in practice to meet with an elementary difeafe unconnected with other affections. In afthmatic, rheumatic, phthifical, \&c. affections, it was mof violent; the deaths in old people moft numerous.
9. In proportion not many died here, it was more fatal fouth and north, as I learned from correfpondents.-This town and neighbourhood contains by eftimaticn 50,000 , out of which 100 fell victims to the difeafe.
10. More malcs died than females, owing to their being more expofed to the inclemency
of the weather, and not from any other predifpofition.

I I. Young fubjects, many bled at the nofe; bleeding was of fervice, but in others bleeding accelerated that debility to which the difeafe was obnoxious, without relieving the fymptoms.-Pediluvia, pectoral emulfions, \&c. and if the pulle was not too high, emp. calid. fterno was of great benefit; in fome cafes vomits gave temporary relief, by phlegm being emitted; purging in full and coftive habits was falutary, but to others occafioned increafed debility.-Sudorifics, when applied too early in the difeafe, rather confirmed, than removed the fymptoms ; but, when properly applied, were of fervice.-Synapifms in great debility raifed the pulfe, and produced a difpofition to perfpiration; but in many cafes haftened the diffolution of the patient.
13. Gruels, fago, flops, mutton broths; beef tea, and wine, in great debility; but in general a difrelifh to all kinds of folids prevailed.
14. The fouth and fouth eaft wind, dry and exceffive cold at firft prevailed, and latterly

Vol. VI. Y it
it veered about to the weft and north-weft; and as this place lies expofed to the fea from the N.E. to S.E. was much expofed, though large coalfire s, and increafe of bed-cloths were injoined.

15, 16. It may be matter of difpute whether fome colds and catarrhal affections which now prevail, (and which are common when the wind blows from the fea,) are relapfes of the Influenza, or not, as thofe that had not the difeafe then, are now (July 20) labouring under colds, \&cc. \&ec. In fome, the relapfes were more violent than the preceding affec-tion.

2r. Rheumatifm, afthma, irregular returns of pyrexia, though not properly coming under the character of remittents or intermittents.
22. Some individuals in a family fay they caught the infection from others of the fame family, on their return home from a journey ; this is rather doubtful, though fome, little expofed to the external air, were alfo attacked.
23. We have no manufactories here. Ship-building is carried on to a great
extent，public fchools were publicly vifited：－

The other queries are all either compre－ hended in thefe，or did not come within my obfervation．

I fhall offer a few remarks on the two pre－ ceding Influenzas，viz．that of 1775 and 1782，which，from the extent of my practice， though unaided by notes，gives me confidence in narrating．－About the $7^{\text {th }}$ of October 1775，an epidemic prevailed in the fhire of Galloway，S．W．of Scotland，which was ge－ neral over England，Ireland，and alfo faid by correfpondents to prevail in North America， \＆c．it was violent in its attack，though not often fatal in its termination－－the ftate of the air was fuch that a piece of beef fufpended by a paper kite in the air for 20 minutes， became highly putrefcent，as tried in the neigh－ bourhood of Glafgow，a certain want of elai－ ticity，continual dark fog，and particular fmoky fmell in the atmofphere prevailed for five weeks，fun feldom feen，and though October and November are particularly rainy months in that country，little or no rain fell， wind eaft fouth－eaft and fouth，foft and warm
-thermometer at 56 , and 60 -perfons of all ages were affected, and in one day whole families were confined to their rooms or to bed, fo that they had fcarcely a nurfe left to adminifter to their affiftance.-I think one of 500 died, moftly aged, but the phthifical fymptoms of thofe between 18 and 36 were particularly obftinate; and fome have fallen victims to confumption which had its foundation laid in the difeafe. It will be feen that the ftate of the weather was very different in this and the fubfequent Influenzas, a foggy, dark, warm atmofphere, with heavy dews prevailed, till the 5 th of November, when a keen black froft, and ftrong north-weft wind, acked like a charm, and outdid all the doctors, in accelerating a recovery, and obftruCting the progrefs of the difeafe. In 1782, and the prefent, the air was generally dry and exceffive cold, and the difeafe difappeared, though no great change took place with refpect to the atmofphere. - I omitted faying that perfons who died on the 4 th, or before the $5^{\text {th }}$ day, turned mottled or fpotted very foon after death. If thofe few remarks contribute to the I have my wifh.
P.S. Moft of this was wrote a month ago, but I omitted fending it, as fome of my patients were labouring under relapfes.
ARTICLE XXX.

From Mr. WAiblinger, of Fulneck, near Leeds, Yorkßhire.

July 9, 1803.

1. I thought catarh rather more than ufually prevalent in the circuit of my practice, fince the latter end of March, but cannot fay I obferved any remarkable circumfance differing from the ufual complaints of the feafon. I had heard of the Influenza being prevalent in Leeds, fix miles from hence, for fome time previous, but the latter
2. end of April and beginning of May it has been indeed very prevalent in the circle of iny practice.
3. I have not attended fo many cafes fince, as I did, throughout the month of May.
4. It has not get entirely ceafed in this neighbourhood.
5. The fymptoms moft prevalent were, a dull pain in the head and loins, the eyes watery, and nafal difcharge confiderable, frequently
quently the throat fore, in fome cafes violent pains in the cheft and fide, with difficulty of breathing.
6. The variety of the attack in individuals has certainly been confiderable; in refpect to its violence, in feveral inftances they have been very fimilar, in members of the fame family, but I can draw no general conclufion from that circumftance.
7. In no cafe has it proved fatal, among fome hundreds that I have attended, when unconnected with other difeafes; and of thefe I only recollect three cafes of elderly people, who had long laboured under afthma and anafarcous difeafes, for a number of years.
8. Anfwered above.
9. I have not obferved any particular age more obnoxious to the difeafe than another in my practice; perhaps the older claffes of life may have had it more feverely.
10. I think the proportion of the fexes was nearly equal.
11. Brifk purgatives in the firft inftance, and afterwards fmall dofes of antimony and fquills, fo as to caufe gentle naufea; if vafcular action was very confiderable, I ufually
gave a few drops of the faturated tinclure of digitalis with each dofe, with the beft effect; if the cough was troublefome, I gave a fmall opiate at night.
12. I feldom bled, and when I did it, did not perceive any good effect, though fometimes fymptoms ran fo high, as to apprehend violent pulmonic inflammation; yet I feldom found any buff on the craffimentum, or relief enfuing from bleeding. Blifters were, I think, occafionally ufeful. The latter part of the queftion, as to the circumftances where they were employed, it would be too voluminous to enter into, and is, I think, partly. anfwered above.

I3. Diet ftrially antiphlogific. I ufually ordered the patient to dilute freely with ground-ivy tea, fweetened with honey, or coarfe fugar; if it did no good, it was I believe innocent, and a fort of placebo which might be ufeful.
14. The temperature of the rooms was directed to be comfortably cool.
15. If taken early, in nine cafes out of ten, by ufing the above remedies, the fympfoms went off completely in a few days.

In many inftances, however, leaving great debility, for which it was neceffary, and obvioufly ufeful, to prefcribe the cortex, unlefs forbid by fome other confideration.
16. Relapfes were frequent.
17. I think in general the fymptoms were nearly fimilar, but moftly more fevere.

18, 19, 20 and 21. Anfwered above.
22. I have nat completely made up my mind on this fubject.
23. In two large fchools that I attend, the epidemic has been fo very various in precifely the fame
24. circumftances, and the intervals fo very different, that I can give no decifive opinion.

25 and 26. The fites and local circumftances of the places in which I made my obfervations, are fo extremely various, that I cannot directly anfwer this queftion. I do not, however, recollect any particular difference.
27. The difeafe made its appearance in Leeds, fix miles eaft from here, 6 weeks or 2 months before we had any thing of it.

To the remaining queries, I have nothing particular to fay.
ARTICLE XXXI.

> From Dr. BERTRAM, Hull.

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\text { JUNE, } 9,1802
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In anfwer to your letter of the 16 th ult. which I only received on the $4^{\text {th }}$ inftant, conveying fome queries from the Medical Society of London, refpecting the late epidemical diforder, I have to fay, that it will afford me much pleafure, to be able to add any thing to the ftock of facts, with which you will be furnifhed by your numerous correfpondents, and fhall therefore reply to the queftions propofed in the order in which they are ftated, premifing, however, that although my anfwers may not be fo explicit, yet I fhall not make any remarks, unwarranted by my own obfervation, or that of others, on whofe fidelity and accuracy I can rely.
I. An epidemical diforder has been very frequent, differing from the ufual difeafes of the feafon, which, although very general, has
not influenced every individual, as many have efcaped it entirely, and others have been fo nightly affected, that, had there not been any particular complaint prevalent, would have paffed off without any obfervation.
2. About the 20th of March.
3. About the 10 th of April.
4. About the end of April, unlefs in cafes of relapfes, when the period muft of courfe be uncertain; for although rheumatic cafes were very frequent in April and May, and by many included under the reigning epidemic, yet I think they were perfectly diftinct diforders, and clearly occafioned by the feafon.
5. The moft general fymptoms were catarrhal, nearly refembling thofe defcribed by Dr. R. Pearfon, the moft troublefome and unmanageable of which was the head-ach, and when the mufcles of the neck were alfo affected, which was often the cale, every motion of the head, efpecially the rotatory one, was very diftreffing and painful. Some had violent and fudden attacks of vomiting and purging, nearly refembling cholera morbus, though the evacuations did not indicate fo
much
much error in the biliary fecretion, either in quantity or quality, yet the bowels were, in the majority of catarrhal cafes, coftive. Others again had confiderable affections of the fauces, conftituting the Cynanche Tonfillaris, which, however, moft commonly terminated in reforption,

Although it may appear objectionable to include thafe three feemingly diftinct diforders under one name, yet I do it from a firm conviction of their being different types of the fame diforder, and occafioned by the fame caufe, as I cannot trace that more than one of the above train of fymptoms exifted in the fame perfon, either at the fame time, or in fucceffion, during the whole prevalence of the epidemic.
6. Except in the variety above ftated (5), or influenced by any particular predifpofition or previous diforder, the fymptorns were nearly fimilar.
7. Not fatal, except in very old perfons.
8. Uncertain, but the fatality was extremely rare.
9. Not fatisfactorily afcertained, but where it proved fatal, it feemed to do fo from acting as the occafional caufe, rather than by exciting the
tendency to a fatal termination, previoufly lurking in the habit, efpecially in cafes of phthifis pulmonalis, diftinetly and rapidly accelerating the tragical event.
10. No decifive refult from inquiries upon chis head.
11. In thofe affuming the catarrhal form, full or naufeating dofes of antimonic tartar, then aperients and gentle diaphoretics. For the head-achs, topical bleeding, blifters, anodyne fomentations, and the warm bath; as although opiates procured relief, they certainly aggravated the pain, after the narcotic effect had ceafed, and in full dofes, feemed to have a hurtful tendency in every fpecies of the diforder; and the affection of the head, in many cafes, appeared to baffle every effort of fkill for a confiderable length of time; although aperients, which, from the ftate of the bowels, were in thefe cafes ftrongly indicated, feemed to produce moft permanent relief.

In that varicty of the diforder refembling cholera, a fimilar treatment to that which is found ufeful in the latter difeafe, was fuccelsfu!.
12. Although, general bleeding in thofe cafes where an inflammatory diathefis exifted, or where a tendency to it appeared, certainly produced relief, yet as thofe inftances were very rare, and it evidently increafed the fubfequent debility, it was feldom had recourfe to.
13. Low diet, diluting tepid drinks, no fermented liquor.
14. Unlefs in very urgent cafes, confincment in bed was not neceffary, though owing to the cold weather, it was found advifeable to keep within doors.
15. Without any remarkable increafed fecretion, but that of the kidneys, which, in many cafes during the diforder, was very much diminifhed.
16. Although not frequent, by no means uncommon.
17. Symptoms fimilar to thofe mof urgent during the preceding diforder, and often as fevere.
18. In fome very flowly.
19. A very great and diftreffing languor and liftleffnefs was in many cafes the fequel, efpecially when a relapfe occurred, and feemed
to be a kind of intermediate link betwixt the two diforders, thereby making it difficult to afcertain when the former ceafed, or the latter began its courfe.
20. Food eafy of digeftion, and fuch as in fmall bulk afforded much nourifhment, gentle exercife, change of air, bitters, affifted fometimes by the tepid bath.
21. Anfwered before, although rheumatic cafes were very frequent.
22. Doubtful, although I rather am inclined to think, that it is not contagious, as individuals in families frequently efcaped, and where they were all affected, the attacks did not feem to obferve that regular fucceffion which takes place in diforders arifing from contagion.
23. There are no extenfive manufactories, in this town or neighbourhood, and in the largeft fchool, out of near eighty day fcholars. about i4 only were affected, although they were not only expofed to the diforder at fchool, but in their different families, and intercourfe with their numerous collateral acquaintances; and in the fame fchool, out of thirty-feven, the number of which the family refiding
refiding in the houfe is compofed, only fist were attacked, which latter number is exclufive of the former; and in all, the diforder was fo mild, as not to require the aid of a phyfician, which ftatement will corroborate my opinion advanced in the 22 d anfwer.
24. Anfwered above.
25. Hull is fituated in a flat country; about 12 miles from the German Ocean, on the banks of a fmall river, which empties itfelf immediately into the Humber, two miles broad, and about 20 miles from its mouth.
26. Northerly and eafterly, efpecially during the vernal months, and the latter are particularly fevere from the vicinity of the fea, there being no intervening high ground, or other fhelter to fcreen from its Charp and piercing nature.
27. It appeared to fhape its courfe from fouth to north, and not to be regulated by intercourfe.
28. Some very warm weather for a few days towards the end of March, which was preceded and fucceeded by cold eafterly winds; and dry weather.
29. The
29. The progrefs of the difeafe has not in any degree feemed to follow the direction of the wind.
30. In 1782. the Influenza did not reach Berwick, where I then refided, until the feafon was farther advanced, and the weather was very warm ; but having no memoranda, I cannot fpeak decidedly on its peculiar nature, but I recollect that it did not appear to me to be contagious. From many circumftances, but chiefly from the furgeon of the Wilthire militia, then in barracks there, who confulted me on the moft proper mode of treatment, informing me, that it did not affect the men by rooms, meffes, or companies, but promifcuoufly, and I remember his mentioning that many of them had pulmonic hemorrhages, and others were fuddenly feized on the parade, after falling as in a fyncope; and that bleeding, though Atrongly indicated, efpecially as the men were for the moft part robuft, proved hurtful.
31. None fo general as to be obferved, during many months preceding or during the prevalence of the diforder.
32. None but what are included in the above anfwer.

Vol. VI.
2

If any of my remarks appear unfatisfactory, I fhall be happy to explain them farther, or to render any other fervice to the Medical Society.

I have a daughter at a fchool at Leeds, who was taken ill, in the beginning of April, and who having fuffered a relapfe, is now not quite recovered; the had very mild catarrhal fymptoms, chiefly head-ach and fever, and much debility.

## A R TICLE XXXII.

From Mr. CHARLES ELLIS, Hull, Yorknire.

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\text { August, } 6,1803 .
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Our having had the Influenza here particularly mild, when compared with the ravages it has committed in other places, may in fome meafure account for its not having fufficiently attracted the attention, as to enable me to anfwer all your queftions; regretting it is not in my power to give you a more fatisfactory account of it, and one more worthy your attention, I tranfmit to you the few obfervations I made during its prevalence. It firft appeared here about the latter end of $\mathrm{Fe}_{-}$ bruary, and kept increafing until about the middle of April, when it began to decline; and fince the 24th of May I have not had one patient attacked with it.

The ufual fpmptoms were chillinefs, rigors, pain in the head, back, and limbs, naufea, languor, and debility. The tongue, at the Z. 2 firft
firft white, but before the end of the difeafe it became browner, particularly in the middle; in fome an acrid difcharge from the nofe and eyes, which gave them an appearance not unlike that which they have in the meafles; the pulfe quick, foft, and weak; a tickling cough coming on about the third day, and gradually became more violent, with pain in the brcaft, dyfpnoa, and a quantity of phlegm and mucus was expectorated. In this manner, with little variation, were thofe who had the dileale in its worft form affected, who were under my care. In fome it was fo flight as not to confine the patient a fingle day, which has occurred in the fame family, with others, who had it in a much feverer manner. There feemed to be no exceptions to it, either in age, fex, or conftitution. Upon the whole I had rather more female than male patients. I attended about 120 , but in no inftance was it fatal; neither have I heard of its having been fo, with any of my medical friends. Emetics, the faline julep with gentle aperients, when coftivenefs indicated their utility, with blifters upon the breaft and fides, when the pain in either was confiderable, and the antiphlogittic regi-
men were the means I generally purfued for the firft three or four days. When the inflammatory fymptoms began to diminifh, and the cough, which was always the moft troublefome part of the difeafe, and the manner in which it univerfally terminated, came on, the lac. amygd. with tinct. opii camph. or when there was much difficulty in expectoration, occafionally giving the lac. ammon. and ox. fcillit. generally fucceeded in abating it. I met with only three relapfes, which appeared to proceed from the patients having imprudently expofed themfelves to cold; the inflammatory fymptoms and pain in the breaft in one of them were worfe than upon its firft attack, but in the other two, confiderably flighter. I had no cafe where bleeding was neceffary. How far it is contagious I cannot decide; in fome cafes it has appeared clearly fo, in others not fo. I have met with it where at firt only one perfon has been attacked with it, and it afterwards went through the whole family, in others where but one in a family had it, and where the others were equally expofed to infection as in the other cafes. It more generally happened, however, that where it began
in a family, cvery member of it was affected more or lefs. The country around us is particularly flat, and the town itfelf nearly furrounded with water. The difeafe has appeared to come from the fouth, and proceeded north; we heard of the inhabitants of Lincoln and different parts of Lincolnhhire being affected with it, previous to its being prevalent here.

## A R T I C L E XXXIII.

From Mr. CROWTHER, of Halifax. August 7, 1803.

According to your requeft, I fhall here endeavour to give you fome account of the firft cafe that came under my care in the late prevailing Influenza, to which I fhall fubjoin fome remarks fince made; but had I been previoufly aware of this requeft, it is probam ble that my account had been more complete and fatisfactory.

The firft cafe, then, that fell under my care was on the 8th of February laft. A man about 40 years of age, of flender make, and apparently of a confumptive habit, was feized in the night with ficknefs, and difficult breathing, together with an excruciating headache, profufe fweating, quick pulfe, a furred tongue, and a violent cough. - In the morning I was fent for, and found him as above
defcribed.
defcribed.-I took from him 12 ounces of blood, gave him a cathartic, compofed of decoction of fenna, fal nitre and fyrup fcill. two table-fpoonfuls, to be taken every two hours, until it operated, and at night a teafpoonful of the paregoric elixir, with an addition of tinct. opii, in a little water. On the 1 oth, found him much better, his fever abated, his cough fomething lefs, but inclined to vomit. I then gave him a gentle vomit of ipeca. which got up a large quantity of phlegm, and relieved his head very much; but did not quite remove his vomiting. On the 1 ath, gave him a faline mixture in a fermentive ftate, which put a fop to his vomiting, but brought on his cough more fevere; fo that he complained of a ficknefs in his breaft, and great heat. I ordered him mut-ton-brothe, and calves' feet jellies, and fuch like mucilaginous fupport, taking every other day a little of his purging mixture, as he found occafion. He then gradually recovered, only his cough continued till after he returned to his bufinefs. Recent experience has convinced me that to forp the cough in this complaint is almof deftroying the patient. Re-
fpecting
fpecting its height, it varied much in different conftitutions. In perfons of a weak habit, it was difficult to determine the precife time; the robuft and ftrong in about eight or ten days. The diforder difappeared as the weather became warmer, but its influence is yet felt in many afthmatic conftitutions, and thofe were the perfons that have fuffered moft from it, and to which the difeafe has been moft fatal. I cannot fay the difeafe has been fatal when unconnected with other complaints. Old perfons whofe conftitutions were broken with infirmities have been carried off by this diforder. The diforder has not been confined to either fex in particular.

Relaples were very frequently more fevere, and with aged perfons generally fatal in a fhort time.

The diforder generally affected the whole family in fucceffion.

Upon inquiry I find that where the inhabitants refide under hills, fheltered from the eaft winds, they have efcaped more generally, unlefs in fome families where there is every reafon to believe the difeafe was brought from another quarter; and on the other hand,
hand, with perfons refiding on hills and expofed to all winds, the difeafe has been very prevalert and troublefome.

Such, Sir, is the account my memory enables me to give you, and hoping your candour will excufe its imperfections, as I was not previoully aware of your requef.
ARTICLE XXXIV.

From Mr. Jefferson, Pontefract.

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\text { July, 2, } 1803 .
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Anfwers to queries.
I. Certainly, but milder in its effects, and not near fo general in its attacks, as in other parts of the kingdom, as will appear by the following concife replies.
2. About the middle of January, and at firf did not diftinguifh it from rheumatic fever.
4. I think I faw fome flight cafes having relation to it, fo late as the middle of June.
5. Pain in the loins, and breaft, the latter I believe was altogether mufcular; judging fo from the good effect of blifters.
6. Where feveral perfons of the fame family were affected, it was indifcriminately milder, or otherwife, fome were confined to their beds for three or four days, while others continued to follow their daily occupations.
7. Not
7. Not in this town or neighbourhood.
9. Old people with afthmas, or any other diforder of the cheft. Of this defcription a few died.
10. If any difference, fhould take it to be the females.
II. Keeping up a diaphrocris with volatile alkali, camphor, \&c. where plethora more prevailed, nitre was ufeful.
12. Did not bleed, found no great advantage in emetics,-when purgatives were wanted, thought calomel intitled to a preference. Seldom had reafon to be pleafed with the effects of opiates; fudorifics always beneficial ; blifters never failed to produce all the good effects that could be defired.
13. Broth, gruel, pudding, \&cc.
14. Warm.
15. By perfpiration.
17. When relapfes did occur, (which was not frequent) the fymptoms were fimilar to the original attack.
18. Confidering the fhortnefs of the difeafe, convalefcents were left in fuch a fate of extreme debility, that their recovery was always flow.
20. Animal food, wine, porter, \&c. \&c.

22 and 23. Have no reafon to think the Influenza highly contagious, if at all fo; within four miles of this place, there is a pottery confifting of upwards of three hundred fouls, they have daily intercourfe with the town, and every other part of the country, yet not a fingle perfon of them has fuffered from the difeafe.

25 and 26. Pontefract is a dry and elevated fituation, our prevailing winds in the fpring are generally from the eaft, this year it feldom blew from that quarter, being chiefly confined (with the variation of a few points) to the N. W.
27. We heard of the epidemic, both north and fouth, often before it appeared.
ARTICLE XXXV.

From Mr. JONATHAN IBINNS.
Ackworth School, Nov. 11, 1803.

Though I may be able to communicate nothing, which may be deemed of much importance, on the fubject of your circular letter, as total filence may be conftrued into difrefpect for a refpectable fociety, of which I have many years had the honour to be a member, I am defirous of contributing my mite towards your laudable intention.

What I have to relate will, I truft, throw fome light on the queftion, whether the Influenza is, or is not, a contagious difeafe. My facts are of the negative kind, for I did not fee a fingle cafe of the late epidemic; this I conjecture arofe from the fcarlatina anginofa being prevalent at the time in this family, which fpread fuch an alarm in this neighbourhood as to cut off almoft all com-
munication, and from my having declined vijiting, fince I fettled here.

If the Influenza arofe from the general ftate of the atmofphere, there is reafon to fuppofe it muft have been very general in this fchool, as there are few fimilar infitutions in the ifland in which the air is ordinarily more freely admitted than in this, and during the prevalence of the fcarlatina there was a more than ordinary attention to it; not only the fchool rooms and dining-rooms, but even the dormitories had, in general, the windows partly open both night and day; and in play hours the children are much out of doors, when the weather is not very unfavourable. At the time that the fcarlatina exifted here, the Influenza prevailed in the neighbouring towns, and I am informed by my friend Dr. Richardfon, that it was very general at Wakefield, which lies only eight miles weft of us, while the wind blew almoft conftantly from that quarter for feveral weeks ; we muft, therefore, have been expofed to the fame kind of air, that the inhabitants of that town were, during that time, yet the Influenza did not attack a fingle individual of this
family, which, when the fearlatina broke our, confifted of 298 children, and about 35 officers and fervants. Dr. R. further informs me , that the fingular fact of 300 having efcaped the difeafic at Ackworth fchool, urged him to inquire if a limilar circumftance happened at any other fchool; he adds, "I went to Crofton *, where there are about 60 young ladies, and was informed by Mrs. Wilfon that they all had efcaped the Influenza. The difeafe attacked many families in the village of Crofton. The young ladies are pretty conftantly in the open air, but had no communication with the people of the village."

I think it not probable that the Influenza was counteracted with us by the prevalence of the fcarlatina, as there was always a confiderable number of the family free from it, though 170 had it in the courfe of four months; befides the lick, for the moft part, were removed to a houle at a diftance; nor do I fuppofe that the fumigations we ufed,

* Cofton is a village about four miles eaft of Wakefield, and therefore with a weft wind, more immediately receives the air which bluws from that town or neighbourhoud.

which

which were infufficient to ftop the progrefs of the fcarlatina, could have prevented the Influenza ; at Crofton fchool, I believe, nothing was done, only care taken to prevent communication with the infected ; hence I think it reafcnable to conclude, that the late Influenza did not depend merely on the general fate of the air, but rather on contagion.

I hope my having been more than ordinarily engaged in attention to the fcarlatina in this family, will be fome apology for the latenefs of this communication.

## ARTICLE XXXVI.

From Dr. OAKLY, of Mirfield, near Huddersfield.

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\text { June i, } 1803 \text {. }
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Gentlemen,
Having for fome years retired from the practice of phyfic, I can offer little in anfwer to your queries, from my own obfervation. However, I put your letter into the hands of Mr. Carr, an elderly gentleman, refiding at Gommerfall, three miles from this place, which fituation is hereafter defrribed. He is a man of a good natural underftanding, cultivated by a good education and judicious reading; and in extenfive practice, as a furgeon and apothecary. I will here fet down his anfwers to feveral of your queftions, according to the numbers in the printed letter, to fave writing and circumlocution.

1. Yes : a difeafe much like a common cold, and at firft miftaken for it, till becoming very pre-
prevalent, it difcovered itfelf to be an epidemical Influenza.
2.     * 
3. About the end of May.
4. 
5. Laffitude; pain of the head and back; forenefs about the cheft, with troublefome cough ; laborious refpiration and pyrexia.
6. The fymptoms are nearly the fame in all patients.
7. No.
8. 
9. It is more frequent in adults than children.
10. 

II. Emetics, bleeding, blifters, nitrous aperients, mucilaginous pectorals.
12. Opiates were ufed very faringly, and fudorifics but little. Bleeding and blifters were indicated by the urgency of the pain, and other fymptoms of the cheft.
13. Antiphlogiftic.

* When nothing is added to the number, Mr. Carr would not venture a decided anfwer for want of certainty; or the queftion is virtually anfwered, or made to require no anfwer by that to fome other query.

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14. Moderate cold.
15. 
16. 
17. 
18. No, rather flowly.
iy. In a fate of confiderable weaknefs.
19. The fate of convalefeence feemed to require no particular treatment.
20. No fuch have appeared here.
21. Not contagious; as many inftances have occurred of individuals in large families being attacked, while the reft remained free.
22. Schools feem to have efcaped. Nothing particular has occurred in regard to manufactories.
23. Few cafes of this have occurred.
24. Gomerfall, a village lying high in a hilly, cloth-manufacturing neighbourhood, about $S$ miles from Leeds, Wakefield, Huddersfield and Halifax, and 6 from Bradford.
25. Chiefly wefterly.
26. We heard of the Influenza being in London and Bath before we faw any thing of it here: then it Chewed itfelf at Leeds, from which place it came to us, probably by intercour $\int$.
27. The firing has been fine, but rather droughty.
28. The wind feems to have had no influence on the progrefs of the diforder.
29. Yes: that which prevailed about 20 years ago, was very fimilar in every respect.
30. No.
31. None.

Aa 3

## A R TIC L E XXXVII.

From Samuel argent bardsley, M. D.
Phyfician to the Manchefter Infirmary.

1. An epidemic catarrhal fever, or Influenza, appeared in Manchefter as early as the firft week in February; but it extended itfelf, for fome weeks, in only a partial and confined degree; I met, however, with no inftance of the difeafe, in either public or private practice, prior to the beginning of March; many other practitioners likewife affign this latter date as the period of its commencement ; yet, I am able to ftate, on the unqueftionable authority of my friend, Dr. Percival, that the difeafe manifefted itfelf, in his own family, on the 4.th of February; and from the beft of his recollection, it occurred, in feveral cafes, during the early part of that month. It does not, however, appear to have fpread throughout all parts of the town, until the fecond week of March.
2. Anfwered above.
3. I find
4. I find it exerted its greateft influence between the 26 th of March, and the 2d of April: this is evident from the number of patients, entered into the home-patient-book of the Infirmary, having exceeded in a fourfold proportion, that of any other week fince the commencerrent of the year.
5. It difappeared about the 26 th of April.
6. The epidemic, in its genuine form, exhibited the following fymptoms: fpontaneous wearinefs and languor, fucceeded by flight fhiverings, with alternate fluhings of heat, firft attack the patient ; he then complains of a deep-feated pain in the courfe of the frontal finufes, accompanied, for the moft part, with fneezing, and a profufe difcharge of lymph from the nofe and eyes. In the fpace of a few hours, acute darting pains in the mufcles fubfervient to refpiration, attended with a tickling cough and hoarfenefs, frequently oc-cur-as the difeafe advances, the patient complains of much anxiety about the præcordia, dull, aking pains in the back and kneejoints, and of great debility, languor, and depreffion of fpirits. The pulfe is fmall and quick; feldom, if ever, hard and full; the
tongue
tongue is covered with an extremely white mucus, and has the appearance of having been fuffufed with milk-the tongue being moift, little or no complaint is made of thirft. -The appetite is not only entirely loft, but a fixed loathing to any folid food is expreffed -on the 3 d day, and fometimes as late as the 4 th, the difeafe feems to have attained its acme.
7. The above defeription is only intended to apply to the genuine unmixed form of the epidemic. Modified by age, fex, and temperament, and (admitting it to be contagious) by the circumftances under which contagion was communicated, it exhibited a remarkable diverfity in its effects, upon different fubjects; yet in every cafe fome degree of refemblance might be obferved. Its diftinaive character was never completely loft. In moft delicate females, either ficknefs or diarrhæa, with tranfient fhiverings and debility, unaccompanied with any catarrhal affection, formed the prominent fymptome of the difeafe.

In fome the mucus membrane was but flightly inflamed; in others great pain and difficulty of breathing, with a fenfe of rawnefs
and forenefs in the trachea and cheft, indicated more extenfive inflammation. Members of the fame family were differently afflicted-fome were folely affected with the almoft pathognomonic fymptoms of intenfe pain in the head, and general debility; others chiefly fuffered from the catarrhal affection, attended with unufual languor, and derangement of the ftomach and bowels.
7. I have not met with a fingle inftance of its fatality, when unaccompanied with other difeafes.
8. I caunot afcertain the proportion from my own experience ; but I believe that notwithftanding its univerfality in this crowded and populous town, few have fallen victims to its feverity. If I might hazard a conjecture, not more than one in two hundred have died of the genuine epidemic.
Q. Female fervants were peculiarly liable to this difeafe; heads of families, and very young children form a comparative exception to its indifrriminate attack; but thofe who were moft obnoxious to the complaint, and felt it moft fatally and feverely, were old, afthmatic, or otherwife debilitated fubjects.

It would appear that puerperal women wers highly predifpofed to, and fatally afflicted, with this malady. One intelligent midwife loft five patients within ten days: and one puerperal patient died of the epidemic in our lying-in-hofpital. This is fo important a fact, and hews the neceflity of frict fectufron, from the rifk of perfonal infection, in all puerperal cafes, that it cannot be too generally promulgated.
10. The proportion of males exceeded that of the females, in thofe cafes which were admitted into the Houfe of Recovery ; but, I believe, the majority was on the fide of the females, if the flighteft poffible inftances of the difeafe are to be taken into the account.
11. The medical treatment admitted of confiderable variety; yet from its prevailing character of debility, the chief attention was directed to moderate the febrile fymptoms, and to fupport the powers of life.

12 and 13. Emetics were found highly beneficial on the firft attack; indeed the frequent occurrence of fpontaneous naufea and ficknefs pointed out their ufe. To cleanfe the primæ vix, moderate dofes of calomel,
MEDICAL SOCIETY OF LONDON.
with rhubarb and antimonial powders combined, were given, and repeated occafionally, with excellent effects. When much pain and forenefs in the head and breaft were felt, attended with a hot and dry fkin, either pediluvia, or fomentations of the legs and feet with flannels wrung out of hot water, fenfibly relieved the patient, by exciting a gentle moifture on the fkin. To moderate the febrile fymptoms, fmall dofes of antimonial wine, combined with fpir. æther. nitros. and aq. ammon. acetat. were almoft invariably employed.

The local affection of the breaft was in general fubdued by the application of blifters; and even when the pain in the cheft was fevere and deep-feated, attended with impeded refpiration and a teazing cough, this remedy fcarcely ever failed in affording fpeedy relief. If an excruciating pain and confufion of the head, -turgidity in the veffels of the eyes, and great impatience of light, indicated a more than ufual determination of the blood to the brain; bleeding with leeches at the temples, and bliftering the forehead and nape of the nech, were fuccefsfully put in practice. Opiates

Opiates were feldom employed during the firft Atage of the diforder, as they had a tendency to exafperate the complaints of the head and chef, and increafe reftleffnefs and feverifh heat. When the cough was incefiant, and fharp wandering pains affected the breaft and mufcles fubfervient to refpiration, attendcd with a rapid and fomewhat hard pulfe, the addition, in fmall doles, of the tinclure of digitalis to the faline and diaphoretic medicines, already mentioned, not only mitigated the cough, but likewife promoted expectoration, and induced fleep. Oily medicines were neither ufeful, nor much relifhed by the fick.

The lancet was very feldom employed; in only two inftances, it was deemed neceflary to ufe general bleeding; and even topical depletion of the veffels was rarely advifable. To fubdue the obftinate cough and copious expectoration of aged people, and thofe afflicted with afthma, and other pulmonic complaints, finall combined dofes of opium, digitalis and calomel, along with bark and other tonics, were generally employed. Tonic bitters, with the mineral acids, proved ufeful in checking
checking profufe difcharges by the fkin or lungs, and contributed likewife powerfully to reftore the general health.

Wine, in gruel or whey, formed a powerful auxiliary in fupporting the frength, and preferving a moderate and equable moifture on the fkin. It was found neceffary, among the infirmary patients, to counteract febrile deivility, after due evacuations of the fomach and inteftines, by a light nutritious diet, and a moderate ufe of wine.
14. The patients were kept in a moderate degree of temperature. The wards were duly ventilated, and any excefs of heat or cold carefully guarded againft. The patient was ordered to be kept in bed with a moderately flight covering; and his head and fhoulders were confiderably raifed, until the giddinefs and general debility were partly removed. He was then permitted to get out of bed, and only invited to lie down occafionally with his clothes on. But fo great was the proftration of ftrength, in fome cafes (efpecially of females) that fudden faintings enfued upon attempting to remove them from an horizontal poiture.

Sometimes on the 3 d , but more frequently on the 5 th day, the feverifh fymptoms abated ; yet great languor, and a cough more or lefs fevere, but with freer expectoration, continued to moleft the patient. A copious depofition in the urine, with a change from rather a pale and limpid hue, to a more natural colour, on the 4 th or 5 th day, denoted the diminution of the febrile fymptoms. Moderate and eafy perfpiration, with copious, and fomewhat bilious ftools, greatly favoured the fpeedy termination of the more urgent fymptoms of fever and pains in the back, head, and limbs.

16 and 17. Relapfes do not appear to have been frequent. I have met with but few who fuffered a repetition of the worft fymptoms; and in thefe inftances, the difeafe degenerated into typhus, and was with difficulty fubdued.

18 and 19 . The worlt cafes were difcharged cured from the Houfe of Recovery, in about an average period of 12 days; but many delicate perfons, fubject to pulmonary affections, lingered for wceks, under general debility, and a haraffing cough.
20. See
20. See the method. medendi, number 12 and 13 .

2I. The epidemic feemed to be moft frequently complicated with peripneumonia notha; and, in a very few inftances, with peripneumon. vera. It occafionally affumed the appearance of Cynanche Tonfillaris; and fometimes degenerated into typhus. In old people the peripneumonic fymptoms proved fatal. Four or five of the oldeft inhabitants of the Poor-houfe (the youngeft of them having paffed 80) died of fimple peripneumony.

22, 23, and 24. That the Influenza is a contagious difeafe, arifing from a fpecific materies morbi, and readily communicable from one perfon to another, is rendered probable from various facts, as well as from its analogy to other contagious diforders. Its appearance here, although rapid, was progreflive. It fpread, like other infectious maladies, more particularly among thofe expofed, by their greater intercourfe with each other, to the - hanger of contagion. Female domeftics, and the inhabitants of the nurfery, feldom efcaped its influence. A gentleman of this town returned
turned from London, in the 3 d week of May, while labouring under Influenza. He found his family, in the country, all well; and unconfcious of the infectious nature of his complaint, he beftowed the ufual careffes upon his children. Three of them fickened the next day, and two more on that following. The nurfes of the Houfe of Recovery fell fick, foon after the reception of the firft cafes of the malady, notwithftanding the ufual preventive rules againft infection were frictly followed. At Rochdale, I have been affured, the origin of the difeafe was diftinctly traced to fome gentlemen, who had brought it from Lancafter, where they had attended at the affizes. But the moft complete and fatisfactory evidence of the propagation of this difeafe by contagion, (I had almoft faid the only mode by which it is communicated, is derived from what happened in the Manchefter lunatic-hofpital. None of the patients were afflicted with the epidemic, (although permitted to walk out daily in the airing grounds, until the keeper and matron became affectede In confequence of their attention, while labouring under the Influenza, to fome elderly
patients, whofe fituation demanded more than common care, they communicated the infection to five of the perfons thus circumftanced, while all the reft, to the amount of 80 and upwards, entirely efcaped the complaint.The houfe-fervants, who are folely engaged in domeftic employments, and are never permitted to affociate with the lunatics, fuffered, more or lefs feverely, by the diforder. Thus it would appear, that a careful exclufion from infected perfons, is probably the moft certain preventive method of obviating a malady fo univerfally prevalent.

The appearance of the epidemic in manufactories and fchools, was rapid, but progreffive.

In children the fymptoms, after expofure to contagion, appeared rather earlier than in adults.

In my own family four adults were fucceffively attacked, after an interval, between each feizure, of two days.

25 and 26. The local circumftances of Manchefter render it by no means an unhealthy fituation. Its climate, though unplea-

Vol. VI. B b
fant,
fant, is not infalubrious.-It is fituated in the middle of a large plain, furrounded on the eaft and north by a chain of mountains; and open on the weft to the Irifh Channel.

This fituation expofes it to frequent rains; as the hills which form its line of feparation from Yorkfhire, arreft the clouds in their progrefs from the Atlantic Ocean. The annual quantity of rain which falls, at a medium, may be eftimated at 33 inches. The moft prevalent winds are from the fouth-weft and north-eaft. The inhabitants, from their mode of living, are remarkably exempt from inflammatory affections; and catarrhal fever is by no means of common occurrence. Typhus, under all its varieties, is the great fcourge of the mafs of the lower orders of the people.
27. I have not been able to procure fatisfactory information upon this head; but as far as my inquiries have gone, Manchefter would feem to have been the centre, from whence the epidemic extended itfelf on all fides.-The great intercourfe between this town and all the neighbourhood, no doubt contributed to its fubfequent fpread from the
former to the latter. The regular march of the epidemic has unqueftionably been from fouth to north. When arrived here, however, it feemed to diverge, with tolerable equality, to all fides of the county.

28 and 29. It does not appear to have followed the direction of the wind ; or, to have been, in the leaft, influenced in its progrefs by any fenfible variation, either in the direction or temperature of the atmofphere. No feafon has been apparently lefs unfriendly to the human conftitution than the whole of the late winter and early fpring, in this part of the kingdom. This will appear from the following fummary ftatement of the weather, fince the year commenced.

January, till the roth, mild and cloudy
February, from Jan. Io to Feb. 12. uniform frof, without much intenfion or remiffion. Moftly fine and clear, with little fnow.

After the 12 th, fhowery weather, with gleams to the end of the month.

March, for 2 days heavy rain; from this to the middle of the month, frofty nights, but mild days, with little fnow or rain; the

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\mathrm{B} b 2 \quad \text { reft }
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reft of the month rather warm for the feafon, and little rain.

April, till the 17 th uncommonly fine and warm for the feafon, remarkaibly drying winds.

The barometer has been no way uncommon during the feafon; the winds have been principally north-eaft and fouth-weft, as ufual.
30. I cannot fpeak from my own experience to this point.
31. I have not been able to afcertain whether any epizootic complaint prevailed, either previoufly to, or during the prevalence of the difeafe. At leaft, none fell under my own obfervation; nor that of others, of whom I made inquiry.
32. I hall take the liberty of concluding this paper with a few defultory obfervations. Much diverfity of opinion has prevailed concerning the nature and effential character of the difeafe. From my own obfervation of its prevailing fymptoms in this place, I am difpofed to confider it effentially a contagious febrile difeafe. The mucous membrane may be more or lefs difeafed, and even active local
inflammation may occafionally prevail; but the former is not neceffarily attended with general excitement; and the latter is only to be confidered as an anomalous fymptom dependant on peculiarity of conftitution, or fome other accidental circumftance. Great mifchief will arife from confounding its occafional varietics with the permanent and feecific character of the difeafe. Thus we learn from Sennertus *, that in the epidemic catarth of 1580 incalculable injury enfued, from partially confidering the local affection of the throat and breaft, as indicating a difeafe of a purely inflammatory kind. He mentions the "Tuffis ficca, dolor pectoris, et precipue fepti tranfverfi faucium afperitas, ventriculi languor, tandem gravis anhelitus," \& c. as fymptoms which induced many practitioners to make free ufe of the lancet, and with fuch mortal effects, that in the city of Rome alone, where bleeding was promifcuoufly employed, more than 2000 perfons perifhed. Indeed, it may be laid down, as a medical axiom, that the confitutions of the

* De Feb. lib. iv. cap. xviii. B b 3
generality
generality of the inhabitants of populous and manufacturing towns, will not admit of debilitating remedies, in the fame degree as may fafely be put in practice among more temperate and more robuft claffes of people.

Manchefter, June 11, 1803.

## ARTICLE XXXVIII.

From Mr. WILLIAMI KNIPE, of Gartang.
I. Amongit the ufual difeafes of the fpring, this town and neighbourhcod was attacked by an epidemic, fimilar in appearance to catarrbus a contagione.
2. The firft appearance of the complaint was about the firf of April.
3. From the diforder being in different fubjects, varioully modified, the crifis was feldom regular; however, from my obfervations, the difeafe was generally at its acmè on the 5 th or 6th day; when under a mild form, about the third or fourth day.
4. The complaint fubfided about the latter part of May.
5. The moft prominent fymptoms were a fenfe of fhivering, the patients complained of moft violent head-ach, general aching in the back and limbs. The eyes appeared inflamed, the cough was from the beginning, dry and Bb4 trouble-
troublefome, accompanied with forenefs in the cheft, tongue furred, thirft urgent, pulfe frequent, yet not particularly inflammatory ; the refpiration difficult, in many inftances the internal fauces were much inflamed and enlarged, attended with hoarfenefs.
6. The fymptoms were in general regular and uniform, yet in fome individuals, they were fo mild as fcarcely to require confinement.
7. In no inftance has any cafe in this neighbourhood proved fatal, unconnected with other diforders.
8. In my practice only one fatal cafe happened during the complaint ; the patient was a young lady about fourteen, who had previoufly been much afflicted with pain in the head, the was on the third or fourth day feized with an epileptic fit, accompanied with dilated pupil, and every concomitant fymptom of compreffed brain, and died the day following.
9. The fubjects moft feverely handled by the diforder were the old and puny; thore who had formerly been fubject to afthma, or pneumonic inflammation, or whofe peculia-
rity of conftitutions, gave them a liability to pulmonary confumption.
10. As remedial agents, antimonials, given in the firft ftage, fo as to induce gentle vomiting, occafional aperients, fudorifics, pectoral and expectorant demulcents; when difficult refpiration occurred, with tightnefs in the cheft, venæfection and blifters to the breaft, were had recourfe to. This plan feemed moft advantageous.
II. The mof proper diet confifted in a ftrict attention to the antiphlogiftic regimen.
12. Its common termination was by a gentle diaphorefis; in confumptive habits, the diforder frequently produced hæmoptyfis, and purulent expectoration, accompanied with hectic fever.
13. The patients always felt moft comfortable in a middling temperature. And the fymptoms feemed exaggerated either from too warm, or too cold a room.
14. Several convalefcents, through too early an expofure to cold, had relaples; the fymptoms were much more fevere than the firft attack, and their recovery much retarded.
15. When in a fate of recovery the patients complained of moft violent head-ach; a frequent troublefome cough, and hoarlenefs; a fenfe of weaknefs in the lower extremities, with general debility, in confequence of which, they frequently fell victims to the intermittent fever.
16. The fate of the country during the epidemic was extremely unhealthy. The fcarlatina anginofa, rubeola, pertuffis, were all uncommonly prevalent, they were, however, in few inftances, fatal.
17. Without entering into any opinion, refpecting the nature or fource of contagion, fhall merely fay, I have no doubt but the Influenza was highly infectious.
18. In the different manufactories, the diforder was very predominant; whole families were vifited by it, yet upon inquiry, found them attacked in fucceffion, this in my opinion affords a friking proof of its being infectious; the intervals between the attack were various.
19. The wind during the firt and fecond week of February, was almoft confined to the north and north-weft, fometimes, however,
it feemed to blow, for the courfe of a fingle day, from every quarter, during the latter part of the month fouth-weft and north-weft.

In the early part of March the wind was chiefly fouth-weff and north-eaft, in the latter part fouth-weft and north-weft.

During the early part of April the wind was various, yet much from north and fouthwelt ; in the latter part of the month, chiefly from weit and north-weft.
20. Prior to the Influenza appearing here, I was informed that an epidemic was prevailing in Kendal and Lancafter, alfo that the town and neighbourhood of Liverpool fuffered from a fimilar diforder.
21. You wifh to be informed if any epizootic complaint prevailed here. I perfectly recolledt that in the month of February laft, a very fatal epidemic was predominant amongt the fwine; in our town and neighbourhood, whole herds were fwept off by it.

Thefe are the only remarks I have to make upon the fubject, they are, however, taken from practical facts. And fhould they be found of the fmalleft advantage, I frall think myfelf fufficiently rewarded.

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\text { July } 2,1803 .
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## ARTICLE XXXIX.

## From THOMAS HULL, M. D. Retford, Nutinghammire.

In frict compliance with the requet, contained in the printed queries iffued by the Medical Society, for the purpofe of more clearly afcertaining the nature of the difeafe, which has fo widely and univerfally pervaded every part of the United Kingdom, indiftinctively termed the Influenza, I feel myfelf called upon, as well in compliment, as in duty, to the public, to tranfmit you the following replies, which I prefume you will confider as nearly confined to the fubject of the propofed queries, as the nature of them will admit.

The difeafe, now irrerocably denominated Influenza, made its appearance in this part of the county, about the 20th of March 1803, at which time, the atmofphere was fubjected to great and fudden viciffitudes, attended by fevere morning frofts, and fharp wefterly winds.
winds. It evidently differed much from the ufual difeafes of the feafon; and was fo novel in its appearance, as to require fome ingenuity in adapting to it an appropriate name. As far as my notes and memorandums can inform me, the difeafe appeared to be, not only the moft univerfal, but the moft fevere in its attack, about the middle of April, and from that time, gradually declining, left us about the end of the month of May.

Though pretty uniform as to the leading fymptoms, its mode of attack varied confiderably in fome points, depending chiefly, if not altogether, on the difference in age, conftitution, and temperament, of the perfons affected. - Its commencement was ufhered in, in the ufual way, with alternations of heat and chillinefs, attended by head-ach, ficknefs, a tickling and diftreffing cough, with fhooting pains in the cheft, back, and loins, the pulfe but flighly accelerated, of natural ftrength and foftnefs; a flight tendency to coftivenefs; with a white furred tongue. In the courfe of three or four days, all thefe fymptoms gradually fubfided, excepting the cough and pain in the cheft, which generally remained obfti-
nate for many days, and fornetimes weeks, afterwards-the languor and exceffive debility, with depreflion of fpirits, a loathing of all kinds of food, with a decided objection to almoft all kinds of exercife, formed the latter fage of the difeale; which in duration and extent varied confiderably in different individuals. Towards the clofe of the difeafe it evidently affumed (in many infances although not in all) an intermittent type, at which time the cough gradually abated, the expectoration became more free, and the fputa more confiftent; fuch was the general appearance of the difeafe, as it occurred in my practice, nor were the modifications fo very numerous, as have been reprefented in other parts of the fame county; in fome inftances, a hardnefs and fwelling in the tonfils, and fublingual glands, attended by pain and difficult deglutition, was obferved, and in a few inftances, a fmart attack of pneumonic or peripneumonic inflammation, which, however, was eafily removed by the application of a blifter. Allow me in this place, to obferve what appeared to me fo very extraordinary, as it occurred in fo many infances, under the fame general
type, and confequently fhewing the identity of the difeafe, in every fubject affected with it; notwithftanding the exceffive languor and debility, with the moft unhappy depreffion of fpirits, that fucceeded the firft ftage of the complaint, fcarcely any perceptible difference in the fate of the pulfe could be obferved. Inftead of finding, as we fhould have naturally expected, an equal depreffion and finking of the pulfe, when every other fymptom marked the excefs of debility, the pulfations remained Arong and powerful, not eafily compreffed, nor yet fo full as to create any fufpicion of internal inflammation.

This peculiarity of pulfe was obfervable in and about Newark, to a confiderable extent, and, in feveral inftances in, and immediately in the neighbourhood of this town, where the complaint was attended with much feverity.

When feveral members of the fame family were affected at the fame time with the difeafe, I could not difcover any material deviation from the common mode of attack, excepting in thofe inftances, where fuch a deviation may be afcribed to the difference
in the age and conftitution of the perfons attacked.

I have never witneffed a fingle inftance of the complaint proving fatal, when unconnected with other difeafes; nor, with the exception of three or four cafes, has it been attended by any degree of fatality, within the Phere of my practice, or that of my medical neighbours.

Perfons advanced in years, worn out in conititution, and fhattered by previous difeafe, not only fuffered the moft feverely, but proved the only martyrs to its attack. Females comprifed by far the greater number of patients under my care.

The mode of treatment I univerfally purfued in the difeafe, was much the fame as I employ in all cafes of incipient fever; the ufe of emetics, and antimonial diaphoretics, which, independent of their fpecific effects, have generally the power of opening the bowels to a fufficient extent, I always had recourfe to, in the firft ftage of the complaint; and thefe feldom failed to remove the fymptoms of general fever.

Draughts

Draughts compofed of aq. ammon. acetat. miftur. camph. and vin. antimon. were always productive of much benefit; I feldom had occafion to employ either general or local bleeding : by way of relieving the cough, and dyfpncea, I had recourfe to the application of a blifter, and draughts compofed of mift. camph. ether. vitriolic. and t. caftor. taken three times in the day, which for this purpofe appeared to me by far the moft beneficial.

The diftreffing fymptoms of the fecond ftage, I found in many infances, much more difficult of removal.-Bark, in all its forms, feemed, in many cales, not only of no advantage, but oftentimes prejudicial: the bowels were thrown into inordinate action, and the languor and debility much increafed, by the too powerful purgings, occafioned by its ufe; in this ffage, I experienced nothing more beneficial, than a due perfeverance in the following draught.
R. Infuf. Cort. Cafcarill. 亏vi.

Miftur. Camphorat. $\quad$ ₹fs.
T. Rhei fpirituof. $3^{i}$.

Acid. Vitriol. dilut. gt. vj. M. fiat hauftus, ter die fumendus.

C c
A light,

A light, eafy, and fufficiently nutritive diet, was at all times of great ufe; while a full, frong, and rich dict, feemed rather to retard, than haften a cure.

Relaples in this part of the county, were very common; though in general, not exceeding, in feverity or duration, the primary attack.

The recovery from convalefcence was, in general, very expeditious; yet in thofe, who did recover fo very expeditioufly, I think I could difcover a proportionate propenfity to a relapfe.

The diforders which appeared to combine with the epidemic, were the febris pneumonica of Hoffman II. $1_{3} 6$, and the peripneumonia notha of Sydenham, Scet. 6. Cap. 4. the former of which required a ftrict attendance to the antiphlogitic fyitem, while the latter was always relieved by the ufe of blifters, preparations of fquill. opium, and colomel given in fmall dofes.

In anfwer to your 22d query, I thall briefly give you my decided opinion that the Influenza, or the difeafe fo called, was contagious in this country. The facts on which I have grounded
§rounded my opinion, were obferved by me with much care, and were furnifhed by my own practice. The general prevalence of the difeale; the identity of it, in every inftance where it has affected branches of families, correfponding in age, conftitution and temperament; the flight deviations from the regular mode of aggreffion, as well as in its progrefs, even in perfons advanced in life, and of different conftitutions; its having run through particular families, without allowing a fingle individual to efcape ; and its ready communication from one family to another, where but little intercourfe exifted, point out to me fome of the ftrongeft facts in favour of the opinion I have fo decidedly maintained. - It would be occupying more fpace, than the extent of my paper would admit of, were I to make any comments on the above : I fhall therefore leave it for the prefent.

The cown, as well as the country about Retford, is certainly to be confidered as one of the moft healthy in the kingdom. It is fituated about 144 miles on the high road from London to York, contains, with the connected parifhes of Weft Retford and ClarC c 2 bro',
bro', about 3000 inhabitants; its atmofphere is not loaded, or corrupted by any noxious effluvia from marfhes, fens, or manufactories; it ftands expofed to the weft, to an extenfive plain of about 25 miles, part of which, now inclofed, formerly occupied a confiderable fhare of Sherwood Forelt ; and the river Idle paffes nearly through the center; it fands the moft expofed to the north and weft winds.

The town of Retford, is fituated north of Newark on Trent, 20 miles, and fouth of Doncafter 18 miles.

The epidemic appeared in and about Newark, three weeks, before we had the flighteft experience of it; and paffing by us, in fome direction or other, Doncafter was affected with it, near a fortnight before us; now this appears to me a circumftance not eafily to be accounted for, as the general courfe of the epidemic was from the fouth: this, however is a circumftance, which I have feveral times before noticed, in the cafe of other contagious epidemics, particularly the foarlatina and fmallpox: whether it be confined to difeafes, purely contagious, or not, I have not been able to
afecrtain,
afcertain, yet it appears to me entitled to fome confideration; for if we are to confider the introduction of thefe three diftinct complaints into this neighbourhood, attended by fimilar circumftances, evidently not depending entirely on the courfe of the winds; why are we not intitled to confider them as connected in fome other refpects, analogous at leaft, fo far as relates to the pecularities in their origin, propagation, and extent?

Retford, July 1803.
ARTICLE XL.

From Mr. BISHOP, of LeiceRer.

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\text { JULY } 15,1803 .
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## Query.

1. A peculiar catarrhal epidemic appeared in this town and neighbourhood, during the laft fpring.
2. Between the 15 th and 20 th of February.
3. About the 1 oth of April.
4. About the 25 th of May.
5. The moft urgent effects of the difeafe confifted in difturbance of the vital functions; refpiration was for the moft part confiderably impeded, accompanied with a good deal of pyrexia.
6. Thofe only died under the immediate influence of the difeafe, who had ufually been fubject to winter cough.
7. Of thofe whom I faw, not above one in about 26 died, as fpecified in the reply to query 7.-Thele were perfons beyond their meridian.
8. Thofe who had previoufly been fubject to frequent inflammatory attacks upon the lungs fuffered moft feverely; the aged of thofe who perifhed, died of perip. notha.

Many ic early life, (chiefly between 20 and 40 years), were much haraffed with a dry, painful cough, together with a good deal of conftriction about the præcordia, and general inflammation; in feveral hæmoptoe enfued, inducing a rapid phthifis.-Where the difeafe was very urgent the patient generally complained of acute head-ach, and was occafionally, efpecially during the night, fomewhat delirious; at other times, in a few infances, a certain degree of ftupor took place. I faw but very few under the age of 16 who had the difeafe.
10. Of the cafes to which I was called full four-fifths were females.

Ir. Several of the aged patients complained long and feverely of acute fugitive pains in the intercoftal, pectoral, and abdominal

C c 4
mufcles :
mufcles: in a few the feat of fimilar pains was referred to the liver, attended with uneafinefs at the fummit of the fhoulder or cla-vicle.-Several had fevere pains in the mufcular parts of the limbs. Many were very apt to be irregular in their bowels, being at one time laxative, at another conftipated. In the young and phlogiftic habit the diforder betrayed marks more or lefs characteriftic of thoracic inflammation; numbers of whom probably fuffered extenfive adhefions of the pleura, judging from the feat and fixity of the pains.

Thofe who appeared to labour under phlegmonic inflammation of the cheft, in whom recourle was had to general blood-letting in the firft inftance, pulfe being hard, frequent and oppreffed, the evacuation was of confiderable advantage, in relieving the cheft, and abating the hardnefs of the pulfe. In one example of this defeription, in a plethoric woman, aged 45 , there was fo much pain on one fide of the breaft, accompanied with hard, hoarfe, dry cough, accelerated and difficult refpiration, hard, frequent but ftrong pulfe, that I took away 3 xij. of blood from
the airm, by which the acute pain was much relieved, as well as the dyfpnoa, and the patient recovered well with the aid of blifters, expectorants and pediluvium ; but the evacuation undoubtedly lowered this patient much more than it had wont to do on former occafions. The blood here was covered by a pretty thick cruft, which was a good deal cupped, the coagulum firm and tough. Another female, aged 46 -fubject to frequent pneumonic attacks, during the progrefs of the Influenza was feized with fevere pleuritic affection, inceffant cough, without expectoration, pulfe very hard, about 90.-The patient averfe to topical bleeding, I took from the arm $\overline{\mathrm{vj}}$. of blood, in the firt week of the difeafe. - The blood was very fizy ; fle had a better night after this evacuation, and appeared to be much more comfortable the next morning ; - the fame fymptoms recurring, with unabated feverity, in lefs than 24 hours afterwards, I repeated the evacuation of blood to the fame quantity as before. The moft urgent fymptoms were again relieved, and on giving the fquill and ammoniacal gum, together with a blifter to the cheft, copious
expectoration enfued; and I had flattered inyfelf that my patient would have recovered : hut, unwilling longer to adhere to fimple diluents, and feeling debilitated and languid, the haftily drank half a pint of red Port wine, in one morning; this increafed the urgency of all the fymptoms, fuppreffing altogether the expectoration. Another practitioner was called in, who, in lieu of the former medicines, gave her ammonia, and the patient made a fpeedy exit. Mr. Paget, a very refpectable furgeon of this place, met with feveral inftances of Infuenza, in which venefection was eminently ufeful. No doubt but that this remedy (venefection) has been mifapplied in the treatment of this as well as of other pectoral difeafes, and never with impunity. Whenever I made trial of topical bleeding, I found it nearly as efficacious as general blood-letting. Olcons medicines in general were ungrateful to the fomach. The pationts did not ufually bear purgatives well. -Blifters were particulatly ferviceable in relieving topical pain and dy ipnoca - Relasants did not anfwer fo well as they ufually do in ordinary catarrh; ipecacuanha appeared to
be a more ufeful and agreeable medicine than artimony, as a relaxant.-Pediluvium was often very ufeful, efpecially when ufed about the time of the acceffion of the natural evening paroxyfm. -The infpiffated juice of the poppy, in the dofe of a ccruple, proved a pleafant anodyne at night, after the inflammatory excitement had abated. I never exhibited an emetic.-The fquill and g. ammoniacum ; the kali limoniatum combined with oxymel fcillx, were extremely ufeful.
13. I employed no other diet than the farinacea, toaft and water, barley water, milk, coffee.
16. Relaples frequent, more efpecially in thofe fubjected to copious perfiration.
17. Relapfes induced fuppreffion of the expectoration, increafe of dyfpnœa, head-ach, heat and drynefs of fkin, with frequent rheumatic pains of the loins, and extremities; head-ach was never exceffively violent in any of the inftances which fell under my obfervation; fcarcely any were altogether free from it, and many were difpofed to refer it to want of reft.

18. Con-

18. Convalefeents recovered in general very flowly, excepting the young, who had not the difeafe with much violence.
19. Several of thofe who were predifpofed to phthifis pulnonalis, although perfectly free from any of its appearances at the time they were feized with the Influenza, had this tendency fo much aroufed by it, that a tickling cough continuing, or, frequent attacks of hoarfenefs, occurring with little cough at firft, but increafing afterwards, induced purulent fpitting, terminating fatally in about 5 or 6 months.
20. I have not formed a decifive opinion on this head.
21. In many families two or three were affected with the difeafe; generally, at firf, one only; but perhaps never the whole family. This report applies alfo to quare 23 d .
22. No epizootic complaint reigned here during the prevalence of the Influenza.

I have omitted, by accident, I perceive, to remark above, that together with cough and hoarfenefs, many of the younger or middle aged patients had more or Iefs inflammation
of the mucus membrane of the fauces; in a few inftances fuppuration took place in one or both tonfils; in others, it attacked alfo the euftachian tube and ear, and then formed a very unpleafant part of the difeafe, producing temporary tinnitus and deafnefs.

## A R T I C L E XLI.

From Mr.H.SWAN, Surgeon, Esc. Lincoln.
We had a grear many patients affceted with the late epidemical diforder called InAluenza, which differed from the ufual difeafes of the feafon. It began here on the I gth February, but I had not many patients until the irth of March when the number increafed very rapidly, and on the 25 th it feemed to be at its greateft height, and continued in this ftate feveral days, when it began gradually to decline, and from the 26th of April, I had no frefh patients. They generally began with a Chivering, a difcharge from the nofe, and other fymptoms of catarrh. They complained of univerfal uneafinefs, and when they were afked what part was moft affected, they faid they could not tell, for they had not a free fpot about them. They complained of a forenefs down the cheft, and had an inceffant cough, particularly when in a recum-
bent pofture, but more fo during the night, and fome had a flight inflammation of the membranes of the throat. The pulfe was quick and low, but not hard, excepting in fome of frong habits. In old people there was a great degree of irregularity in the pulfe. The fweat in a night poured from them very profufely, more I think than happens at the end of an ague fit; and this was the cafe with thofe who took no medicine, as well as thole who took fudorifics. The cheft was for the moft part affected, but this was not always the cafe, as one gentleman's family north of Lincoln had all the ufual fymptoms except the cough, and they all had fore throats. I did not find that the fymptoms varied mucis in different individuals, or in the different fexes, unlefs in certain degrees of violence. It was not fatal when unconnected with other complaints, as $I$ do not remember to have loft a fingle patient who had not fome previous affection of the cheft. The proportion of fatality in my practice was very fmall, as it did not exceed one in forty. I did not find that it was confined to any ages, clalfes, or conflitutions; as children, farmers, fervants
of ftrong habit, thofe of the middle age, and debilitated frames, as well as old people were affected by it. I think that old people, when affected, fuffered mof under the difeafe, but they and young children were not foliable to it. Both fexes were affected pretty equally. Antimonials at the firt abated the fever, and I think had the beft effect when they operated gently by an emetic and purgative. The body was kept open by the kal. tartarifat. and other gentle aperients. I bled very ferw, and thofe who were bled could not bear a repetition of the operation. I had not many cafes which required local bleeding. Gentle emetics did good in many cafes. I did not ufe ftrong purgatives, as the fymptoms of debility were fo great. Opiates did much good, and were given pretty generally when no inflammatory or other fymptom indicated their ufe. They quieted the cough, and abated many of the other fymptoms. The perfpiration, when no fudorific was given, was very profufe, but not critical. Blifters were applied, in fome cafes where the cheft was much opprefled, with advantage. At firft I gave falines, but as expectoration feemed to afford relief, when
the firft fymptoms were abated. I gave the gum ammon. with ammon. pra, and a decoction of feneka, which I found ufeful, particularly in old people. The diet which I directed, confitted of broth, fago, gruel, and fuch things, with or without wine, as circumftances required; but after the violent fymptoms abated, the moft of them required wine. We had fome very warm weather for the feafon, when the difeafe was about its height; and it difappeared at a time when the weather was much colder. A moderate temperature feemed the mof favourable. The fever very often abated in a few days, but the cough went off gradually, and generally by expectoration. Many had relapfes, but the fymptoms varied little from the original attack, and I think they were lefs fevere. Some convalefcents recovered faft, but mof very flowly; and fome even now complain that they have never recovered their frength. Some had inflammations upon the lower extremities, and one voman had many inflammatory circumfcribed tumors upon her legs, which formed.floughs, and produced confiderable ulcers, which are not yet healed. Vol. VI. D a When

When the expectoration became free, I gave bark, bitters fometimes with, and fometimes without volatiles, and other cordial tonic medicines. I allowed them animal fond in moderation, milk and vegetables, and fome had affes' milk. I camnot fay pofitively that it was contagious, but in many cafes I fufpected it was, as feveral had efcaped to nearly the time when it left us, and received the difeafe after fome infected perfons came to the houfes where they refided. But the difeafe was not general in the fame houfe, as many efcaped; and in many inflances I have known that feveral fell ill on the fame day, without having had any communication with infected people, I mean thofe labouring under the epidemic. No particular concomitant diforder, in my practice, feemed to combine with the Influenza. I attended two ladies' boarding-fchools, and one for boys, but nothing particular happened in them. A confiderable part of Lincoln is fituated upon a hill, but by much the largeft part is on the fide of it, and in a valley expofed to all the winds, excepting the lower part of it, which is defended by the hill from the north ; but I
did not find that one part of the town was more affected than the other; and I cannot learn in what direction it came to this place. Nor did I find that the progrefs of the difeafe depended upon the direction of the winds.

Lincoln, July ir, 1803.
A R T I C L E XLII.

From Mr. JOHN WHATEL, Y, Burton on Trent.

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\text { August, } 10,180,3
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There has appeared no difeafe in this town, or its vicinity, the laft fpring, that materially differed from the diforders ufually prevalent at that feafon. -The report of a contagious catarrh, or Influenza, exifting in various parts of the kingdom, called forth my greateft attention; and about the end of April, I met with a few infances of catarrh, in which the febrile fymptoms were for a day or two fevere, efpecially the pain of the head and back, but there was not the leaft fhadow of poffibility for my fuppofing them to arife from human contagion; and the whole was probably merely accidental. -- The cafes of pneumonia that came under my treatment, were perhaps fewer than ufual, but I thought bleeding in them of lefs fervice, and my patients
recovered flowly. For many months the fcarlatina had been pretty prevalent with us, in the mildeft form, and attacking chiefly female children : the inftances of fevere difeafe that occurred to me could all be traced to contagion received from places where it was more violent and fatal. The hooping cough and meafles were both common the laft fring, but uniformly favourable.

Burton on Trent has a low but dry fituation. The river runs rapidly in a northwardly direction upon a gravel bottom; by actual admeafurement it is only 90 feet above high water mark, and there is no ftagnant water. On the eaft and weft are high lands, but where the fituation was more elevated, I have met with no greater tendency to complaints. From the geological form of the country, the prevailing winds will naturally feem from the northward.
AR TI CL E XLiII.

From Mr. TREVOR JONES, Lichfield.

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\text { January } 26,1804 \text {. }
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1. Early haft firing an epidemical catarrh, commonly called the Influenza, fpread all over the midland counties ;
2. And appeared in this neighbourhood about the tenth of March.
3. Was at its greateft height about the beginning of April, and
4. Difappeared about the end of that month, or beginning of May.
5. The fymptoms that ufually attended were chillinefs, laffitude, wearinefs, and aking of the extremities; freezing, great forenefs and pain under the fternum, which were much aggravated by coughing, and a frequant pule.
6. The fymptoms varied little in either fox, but from the peculiar idiofyncracy of the individual, from advanced age, or from previous debility.
7. In no inftance did it prove fatal when unconnected with other difeafes;
8. But in advanced age it fometimes terminated in peripneumonia notha, and death.
9. It prevailed fo generally that no particular age, or clafs was exempted; but thofe previoufly difpofed to catarrhal or pneumonic affections, had it moft feverely.
10. It did not appear to affect one fex more than the other.
in. The treatment I found moft beneficial was, in the early ftage of the difeafe, to give fmall dofes of calomel and rhubarb every night, neutral falts, faline draughts periodically, and conftant dilution with tepid barley water, with gum arabic diffolved in it. To relieve dyfpnœa, and promote expectoration in the fecond ftage, or when the forenefs and pain under the fternum, \&c. were abated, I ordered lac ammoniacum, and tinctura fcillæ. When a copious expectoration, in a more advanced period, and inceffant cough prevailed, tincture of digitalis, and tincture of opium hardly ever failed in removing them.

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\text { D d } 4 . \quad 12 . I \text { had }
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12. I had feldom occafion to advife bleeding, emetics, or bliftering, and only in thofe fubject to preumonic inflammation.
13. While the oppreffive fymptoms in the beginning continued, an aqueous diet anfwered beft, which was gradually changed, according to their abatement ; and frequently a full diet, with wine, was allowed, with manifeft benefit.
14. The temperature of the chamber was advifed to be about $60^{\circ}$ of Fahreinheit's thermometer.
15. The termination of the difeafe was generally attended with a copious puriform expectoration.
16. Some perfons had frequent relapfes,
17. But not attended with pain, fever, \&tc. as at the firf attack;
18. Hence it will appear that convalefcents did not always recover fpecdily, though they did in general.
19. Sometimes much languor and debility remained.
20. Convalefcence was promoted by bark and myrrh, by opium, by digitalis, by air, and exercife.
21. Some
22. Some individuals had diarrhæa foon after they were attacked with Influenza. I did not perceive any other concomitant diforder, and it was never fevere.
23. I could not afcertain that it was contagious.
24. Having no large "collections" of people, I can give no anfwer to this queftion. 24. Two, three, and more perfons in the fame houfe were affected, at or very nearly the fame time. In other inftances feveral days elapfed between the feizures.
25. Litchfield ftands moftly in a valley, through which a brook runs; is built of brick upon a friable red rock; is fubject to no particular difeafe, and is efteemed remarkably healthy. Upon a ftrict inquiry I made feveral years ago, it appeared, upon an average of ten years, that the deaths were one in forty-fix.

The water is excellent, conveyed from the neighbouring hills, by leaden pipes.
26. The fouth-weft, and the north-eaft winds have moft effect, by paffing along the valley.
27. I could
27. I could not learn that there was much difference in the time of the Influenza appearing in Litchfield, and the neighbouring towns; but I believe that it began at Birmingham, S. S. W. of Litchfield firft, and at Stafford after it had appeared in Litchfield.
28. I made no meteorological remarks, but I was informed that near the weftern coaft, frefh meat became tainted in much lefs time, during the prevalence of the Influenza, than ufual.
29. I cannot difcover that the progrefs of the difeafe followed the direction of the wind.

3I. No particular complaint was obferved, previous to, or during the time the difeafe prevailed.
ARTICLE XLIV.

Erom Mr. GREGORY HICKMAN, Burdem, Staffordfhire.

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\text { July } 3,1803 .
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Queries-Anfwers.
I. A catarrhal fever, with inflammation of the throat, trachea, and bronchia.
2. About the beginning of March 1803 .
3. April 1803 .
4. Beginning of May-fame year.
5. All the fymptoms of catarrh; with often, much dyfpnoe, and fometimes the kind of wheezing obfervable in the croup, with fore throat; and often pain in the bowels, with conftipation.
6. The fymptoms pretty uniform, but varying in degree.

7 and 8. Very feldom.
9. Moftly grown up young people.
10. Rather moft females.
11. Early emetics, blifters, and purges with
with calomel and rhubarb, in pretty full dofes, generally proved fuccefsful.
12. I never faw a cafe where the pulfe would admit the uie of the lancet; and blifters I preferred to topical bleeding.
13. Barley water, milk and water, linfeed tea; with imperial for common drink.
14. A moderate temperature was found beft.
15. Sometimes an expectoration, but generally a gradual fubfidence of the feveral fymptoms, without any regular crifis.
16. They did fometimes happen.
17. The catarrhal fymptoms much lefs diftinct ; difeafe refembled an attack of flow continued fever ; and even, in a few inftances, refembling typhus.
18. Where the difeafe was taken early, a fingle emetic, and fubfequent dofe of calomel and rhubarb, was often found fufficient for a cure ; but on the contrary, the difeafe was often violent, and then the recovery extremely flow.
19. A ftate of debility, more than commenfurate to the violence, or duration of the difeafe.
20. Nutritious diet, a little wine or porter, and when the tongue is become perfectly clear and moit, yellow Peruvian bark.
21. Almoft every occafional diforder, did more or lefs, affume the character of this, as is ufual of other epidemics.
22. Not contagious; thofe expofed to its effluvia often efcaped; while thofe apparently infulated, were often affected.
23. This place is the centre of that highly peopled diftrict, the Staffordfhire potteries, and I did not obferve the difeafe to run through particular manufactories.
24. Sometimes two together; at others, at intervals, without any remarlable regularity of interval.
25. Remarkably high ground, diverfified with hill and dale, but very little wood. Air ftrongly impregnated with fulphuric, and fometimes, marine acids, from the vaft quantity of burning fuel *; and the ufe of common falt in fome branches of manufacture.
26. W. N. W. nine months in the year.

* The coal is loaded with pyrites.

27. The
28. The progrefs feemed to be from S.E. by S. to the oppofite points: I did not remark that it arofe from intercourfe.
29. During laft winter and fpring, lefs fnow, or fall of any kind happened, than has been known of many years.
30. During the exiftence of the difeafe, the wind varied between N. E. and W., but was never long ftationary.
31. I very imperfectly remember the epidemic of 1782.
32. During the continuance of the difeafe, I do not recollect any; but the previous year many horfes died, of what the farriers termed the mad ftaggers ; but, which upon diffection, appeared to be occafioned by an inflammation of the lungs, and fubftance of the heart, proving fatal in 36 hours; and within thefe few weeks, this has re appeared ; but lefs frequent, and infinitely milder.
33. This difeafe feems to have borne a ftrong analogy to that defcribed by Sydenham as prevailing in 1675 , which he called "epidemic cough," \&cc. It is remarkable, that numbers who have been afflicted with the late Influenza, have fuffered from a very obftinate in-
flammation of the tarfi of the eyelids, which ultimately extends to the tunica conjunctiva, and then becomes very painful.-Upon the whole, however, this country has fuffered very little; the difeafe has almof always readily yielded to mild emetics, mercurial purges, and blifers.
ART\&CLE XLV.

KETLEY, Shropfire.

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\text { June, } 28,1803 .
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" Gentlemen,
"Purfuant to your requeft, I have fent fuch anfwers to the queftions contained in your printed letter, refpecting the late epidemic diforder, as my experience enables me to do, having myfelf fuffered feverely by three relapfes of that dreadful malady.
"I am, gentlemen, yours refpectfully, "J.EVANS."
Anfwers to queries.
I. The diforder commonly called Influenza.
2. The latter and of February.
3. From the middle of March to the laft weck in April.
4. It gradually difappeared by the firft week in June.
5. Pain in the head, back, and limbs, extreme debility, fever attended with coftivenefs,
lofs of appetite, and a total want of reft, which produced a great degree of irritability. Many perfons were deprived of both fmell and tafte, and were feized with a moft fevere pain in the fide. The urine, during the beight of the difeafe, depofited a pink coloured fediment; and on the decline of it, feveral loft their hearing of one, or both ears. An entire deafnefs of the right ear, for the fpace of a fortnight, was cured in three days by electricity. A violent cough, with a very copious expectoration, frequently attended the difeafe throughout. Some few had a fpafmodic affection of the throat, with a fenfation of choaking; and feveral were hoarfe.
6. The fymptoms varied much in different individuals.
9. Aged and infirm perfons, and thofe who had been hard drinkers.
I. On the firlt attack of the difeafe, emetics, mercurial purgatives, and diaphoretics, frequently put a ftop to the progrefs of it.
12. From the languid fate of the patients in general, bleeding was only recommended in a few cafes where the pain in the fide was violent; but was not attended with any ap-
Vol. VI.
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parent
parent advantage. Bliftering the part affected always afforded confiderable relief. Opiates alone, or joined with cemphor, in many cafes did not procure reft ; but the following embrocation never failed in procuring a moft comfortable night's neep. R. tinct. opii. Spir. ammon. c. linim. fapon, c. a 3 ij . m. The whole of this was rubbed into the back and fides of the patient at bed time. Spafms in the throat, and a dejection of fpirits were generally relieved by ether.
13. Broth, tea, coffee, chocolate, milk, and water gruel. As a beverage, foda water, toaft and water, balm tea, \&cc.-Oranges proved very grateful to moft people, but wine was too heating in general, except cowflip, which was an agreeable cordial at bed time. The tafte of malt liquor was extremely difagreeable to many.
14. A moderate temperature.
15. A gradual diminution of all the fymptoms of the diforder. The cough continued the longeit; and fome few cafes put on the form of flight intermittents.
16. Relapfes were very frequent on expofure to cold, and confiderably more fevere
than the original attack, attended with intolerable fitches in the fide and breaft.
18. Convalefcents recovered very flowly; on the cough ceafing, forre had a red, rough, itching, rafh, all over them.
19. They were left in a itate of the greateft debility.
22. The prefent Influenza has not appeared to me to be contagious. - Three of my own family were feverely affected for fome weeks; but two fervants, who conftantly attended on them, remained free from infection. A fhopkeeper's family in this piace was alfo not infected, although there was a continual refort of invalids to the flop. At a brewery carried on in thefe extenfive iron works, for the ufe of the workmen, not one of the family who have the management of it had the diforder, although many infecied perfons frequented the houfe daily.
23. The workmen were moftly attacked in claffes. The labourers being more expofed to cold, were firft infected. The men employed in the furnaces were next feized with the diforder. Out of forty, who worked at Ee 2
what
what is called the Puddling *, twenty were infected in the courfe of four days. The remainder of the forty were, many of them, very flightly infected, and a few not at all.
24. Many were affected in the fame houfe at the fame period, and in fome familics only a few; the remainder entirely efcaping the infection.
25. Both low and elevated.
26. The north, and north-eafterly winds prevailed for feveral weeks; but from the 26 th of March to the 12 th of April, the weather was remarkably warm ; after that time it became extremely cold again.
29. The progrefs of the difeafe did not appear to follow the direction of the wind. The village of Kinnerfley, fix miles north of this fituation, was not infected till a fortnight after it made its appearance in this place.
30. I recollect former Influenzas, which I think were lefs fevere in their attacks, and of a fhorter duration; alfo, that relapfes were by no means fo frequent.

* The Puddling is a particular procefs for the manufacturing of iron, where the heat is fo intenfe, that the men work naked, havinis only linen troufers on.


## A R T I C L E XLyI.

Shrewibury, June 9, 1803.
"GENTLEMEN,
" I take the liberty of offering the inclofed obfervations to the Medical Society. My friend Dr. Darwin put your letter to him into my hand, in confequence of my having made this difeafe an object of particular attention.
" I have the honour of being
"Gentlemen, your moft obedient fervant, "THOMAS DUGARD."
i. The Influenza.
2. On the 20th of February in a boy at the public fchool. I did not fee it again till the third of March, when it appeared in the fame fchool.
3. About the time of the Shrewfbury Lent affizes, (March 20th) the weather was then unfeafonably hot.
4. But few cafes of Influenza occurred in Shrewfbury after the 20th of April.

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5. The difeafe generally commenced with chilly and hot fits, head-ach, defluxion from the nofe and eyes, pain in the chert, back, and limbs, quick pulfe, parched fkin, dry, white tongue, vomiting, and fometimes coftivenefs. The cough then fucceeded with increafed fecretion of mucus, difficulty of breathing, and dejection of firits. The affection of the head fometimes amounted to delirium. The tongue remained long white; and the difficulty of breathing was of cen very urgent.

The fymptoms took the intire range of peripneumony, and fpurious peripneumony, the characteriftic fymptom being an inordinate proftration of ftrength.
6. The fymptoms differcd much in different members of the fame family.
7. The diferfe has not proved fatal in any inftance that I recollect, where unconnected with a previous difeafe, or enfeebled habit.
8. About one in forty.

9: All claffes and conftitutions were obnoxious to the difeafe, adults more fo than children, and amongft the old it was moft fevere and fatal.
10. Both

10, Both fexes the fame.
II and 12. The indications of cure were regulated by the variations of the fymptoms. In general a vomit, calomel, and fmall dofes of antimony : when the difficulty of breathing became great, accompanied with hard pulfe, bleeding was very ufeful, and in fome inftances I have been under a neceffity of repeating it; blifters were of fervice, but I found inflaming the fkin with muftard preferable for allaying the pain in the cheft, as the application could be repeated as often as the oppreffion at the precordia was confiderable.
13. In the beginning the antiphlogiftic regimen.
14. I generally kept thofe patients, who were worft at the commencement of the attack, in bed, for two or three days, being the moft convenient method of keeping them temperate. The temperature of the apartment was recommended to be rather below than above 60 .
15. It terminated generally with a cough and debility.

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16 and

16 and 17. Relapies were frequent, but generally lefs fevere ; fometimes it affumed an intermittent form, appearing worfe every other day, or every third day.
18. No.
19. With debility and incapacity for doing their bufinefs with the ufual facility.
20. Gentle cxercife in a carriage, or on horfeback.

22 and 23 . In my opinion the Influenza was contagious, as is evinced by the circumftance of the two fchools, which I communicated to Dr. Beddoes, and Dr. Pearfon.
24. In the infance of fchools many of the children were feized at the fame time, where they had free communication with the inhabitants of the town. In private families the Influenza gencrally appeared in fucceffion ; this was alfo the cafe in villages, in our county jail, the Infirmary, and other public inflitutions, where there was not much promifurus communication.
25. Shrewfoury is fituated high, almoft furrounded by the Severn, and meadow land without
without marfhes. I did not perceive the fituation to have any connection with the complaint.
26. The wind here, on the 2oth of February, was N. by W. March the 3 d , 4 th, 5 th, 6 th, 7 th, 8th, 9th, Ioth, IIth, I2th, I 3 th, Ifth, 15 th, 16th, 17th, 18 th, N.W., N.W., S., N.W., N., N.E., N.E., N. by E., N., N., N.W., W., N., N., W., W. a frefh breeze. The Igth, 20th, 2 Ift, $22 \mathrm{~d}, 23 \mathrm{~d}, 24^{\text {th }}, 25^{\text {th, }}, 26 \mathrm{th}, 27^{\text {th }}$, when the diforder was at the height, the wind was S.W., N., E., S., S.W., S.E., S.E., S.E., S.W., then continued wefterly. The height of my thermometer, in the open air, on a northern wall in the fhade, ranged in this time, (viz. from the 19 th to the 27 th) from 56 to 66 at noon, except two days, when it was 51 and 53 .
27. Firft in Shrewfbury, then into the market towns, and villages around it, lateft in Wales; and I have no doubt, but the dif order is conveyed from place to place. Vide Letters to Drs. Beddoes and Pearfon.
28. If the Socicty think it worth while, I can furnifh them with a corred fatement of the weather, and thermometer.

29 Ludlow
29. Ludlow lies nearly S. from Shrewfbury; the diforder appeared there the 27 or 28 of March, therefore could not have been conveyed by the wind, as at that time it was here in a fouthern point.

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30 .
$$

31. Horfes, dogs, and cats, were difordered in this town, and in great part of the county, with fymptoms fimilar to the Influenza; many dogs were killed as mad dogs, which were not hydrophobic.
32. In fome of the bad cafes the countenance and extremities were livid for feveral days; the firlt time I faw this fate of the difeafe, I concluded the patient was in articulo mortis, but finding afterwards that this was not the cafe, I fuppofed it to proceed from a deficient oxygenation of the blood, which may perhaps alfo account for the proftration of Arength that characterizes this complaint from common pneumonic affections, attended with an equal urgeney of other fymptoms. In many cafes there was a difagreeable faccharine odour in the breath, which remained for wecks. I do not recollect, in my whole experience, having feen
feen fo many cafes of patients paft 75 years of age, with hot dry fkin, hard quick pulfe, and other fymptoms of high febrile action; as I met with in one fortnight, while this complaint was at its height.
ARTICLE XLVII.

From Mr. EDWARD JONES, Montgomery. June 25, 1803.

1. An epidemical diforder, more generally prevalent than any within the memory of man, made its appearance in this neighbourhood this fpring.
2. It firf thewed itfelf about the I 4 th March.
3. Was at its greatef height from 23 d March to ift April.
4. Did not totally difappear till towards the latter end of April, though it evidently declined from the commencement of the month.
5. Its moft prominent fymptom was great proftration of Etrength, in proportion to the degree of fever; in fome cafes of robult young people, great determination to the head, with delirium, came on.
6. The fymptoms varied much according to the age, conftitution, and previous complaints
plaints of individuals. I did not obferve any remarkable coincidence in members of the fame families.
7. A fatal inftance has not come to my knowledge.
8. 
9. The young and plethoric amongt the lower claffes had the moft fevere fymptoms, but the recovery of the aged and infirm was longer protracted ; there were very few of any clafs that efcaped altogether.
10. Males and females, who fell under my care, nearly equal.
ir. Gentle evacuations, with plentiful dilution, for the firft three or four days of the difeafe, afterwards a tonic plan.
11. Where fymptoms of topical inflammam tion occurred, the moft decided good effects followed the early ufe of the lancet and blifters ; fymptoms of pueumonia were frequent, and in two or three cafes which I faw, there was violent inflammation of the membrane of the trachea.
12. Light nourifhing diet, compofed of animal jellies, fago, \&zc.

14. During

14. During the cold fage moderate warmth, but when the hot fage came on, great relief was generally experienced by the abfradion of heat, which was generally effected by the application of towels, wet with vinegar, to the forehead - The affufion of cold water was not ventured upon, owing to the violent prejudices which exift againft it.
15. I did not obferve any difinct critial period-two or three cafes, however, terminated in regular testian intermittent, which fubmited to the ufual remedies.
16. Relapfes feldom occurred.
17. When they did occur, were rather more fevere than the original difeafe.
18. Convalefeents recovered very flowly.

1g. They were generally left very weak by the difeafe; and were long before they recovered their appetite for food.
20. Thofe whom I wias called upon to attend, not being, generally fpeaking, in affluent circumitances, my attendance was difpenfed with, when the more fevere fymptoms had fubfided.
21. In old infirm people a difficulty of breathing, and tickling cough, were fymptoms peculiarly troublefome.
22. I do
22. I do not think the difeale was contagious, having in more than one inftance feen a part of the family of a dirty crowded cottage fuffer feverely from it; and others of the family, though fleeping in the fame beds with the fick, efcape.
24. When more than one was affected in the fame houfe, it was generally at the fame time.
25. The town of Pool is fituated in a narrow vale, watered by the Severn, whofe courfe is here from fouth-weft to north-eaft. The town is fheltered from weft to north-eaft, by high grounds; the habitations of the lower claffes are clofe and dirty ; it contains about I 500 inhabitants.
25. The moft prevailing winds are the weft and north-weft.
27. The firtt cafes of the diforder appeared eaftward of the town of Pool; and its progrefs to the weftward was fo diftincly marked as not to efcape common obfervation, which progreffion I did not obferve to be at all influenced by intercourfe.
31. The profeffional duties of the faculty were fo much increafed, during the prevalence
valence of this epidemic, that I had not leifure for obfervations, not immediately connected with profeffional purfuits; however, I do not find, upon inquiry, that any fuch complaint exifted.

## A R T I C L E XLVII.

From Mr. RAYMENT, Surgeon, Worcefter. July 1803.

Queries 1, 2, 3, 4.
From the 2 ift of February to the beginning of March, fourteen cafes of catarrhal fever came under my care, but without the difcriminating fymptoms of Influenza, fo marked as to fix the attention at the time; from this period they took place as follows. No. of Cafes.

Cafes.
Cafes. March 3d I March 21 7 April 3

| 7 | 2 |  | 22 | 7 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3 |  | 23 | 5 | 5 | 5 |
| 11 | 1 |  | 24 | 7 | 6 | 2 |
| 12 | 4 |  | 25 | 5 | 7 | 5 |
| 13 | 4 |  | 25 | 1 I | 8 | 2 |
| 14 . | 3 |  | 27 | 7 | 9 | 2 |
| 15 | 3 |  | 28 | 6 | 10 | I |
| 16 | I |  | 29 | 8 | 11 | 5 |
| 17 | 3 |  | 30 | 4 | 13 | 3 |
| 18 | 6 |  | 31 | 4 | 14 | 3 |
| 19 | 17 | April | I | 5 | 15 | I |
| 20 | 9 |  | 2 | 3 | 19 | I |

in all 188 ; of thefe 80 were males, 108 females.
Vol. VI.
Ff
5. Befides
5. Befides the pyrexia, laborious breathing, a cough, the diferiminating fymptoms were great pain over the forehead, with fome degree of giddinefs, a deep fenfe of forenefs on moving the eyes, confiderable diftrefs from ftrong light, and in fome from much noife; great averfion to folid food, thirft exceeding what might have been expected from the degree of fever ; great proftration of ftrength and firits.
8. Only one fatal cafe occurred, and this terminated on the fifth day, with the fymptoms fatal, in peripneumonia notha.
9. Corpulent, relaxated, and debilitated habits appeared almoft exclufively fufceptible. I faw no children under five years old.
ri. Tepid pediluvium, with a fmall proportion of vinegar; calomel, and antimonial powder; at night decoct. hord. \&c. with tamarinds by day, and after the firft two or three days, a few drops of tra. opii, at bed time.
12. The very great proftration of ftrength in all the feverer cafes appeared peremptorily to forbid bleeding. It was not tried in the milder. Emetics were not ufed. Purging proved the moft powerful means of lowering the
the fever; and in general, the fools were very offenfive. Blifters were often uleful. Strong opiates uniformly prejudicial The cure was never attempted by ative fudorifics, except in the milder cafes; in thofe they fuccoeded.

I 3. Light, demulcent, but more generous than in direct pneumonia.
14. In the flighter cafes, a free expofure appeared to fhorten, fometimes even to remove the complaint ; but in the more fevere it was extremely prejudicial, and the moft frequent fource of relapfe.
15. More general by perfipiration, fome few by diarrhæa. The more protracted cafes by expectoration.
16. Not frequent.
17. Febrile fymptoms much aggravated.
18. Very flowly indeed.
19. Great lofs of ftrength, fpirits, and appetite.
20. Bitters and gentle aperients, diet nourifhing, but not ftimulating.
23. The city gaol including the governor's family, contained on an average 23 , all of whom efcaped.

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F f 2
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Tibe

The county gaol contained men debtors 11 , and one woman debtor. Men felons 24, women ditto 15 , with three children. The governor's family 7-in all 71 ; of thefe only the governor and his daughter had the complaint, and they very feverely.

The boufe of correction contained men 18 , women 7 , three children, and the governor's family 2 , in all 30 . Of thefe only the governor had it, and he alfo very feverely.

In a fckool for young ladies, confifting of 33 refiding in the houfe, not one was indifpofed; the day fcholars were nut equally exempt.

In a fecond fobool of the fame nature, confifting, with the family, of 48 ; more than 20 fuffered; but here only one of the pupils had the diforder, with any confiderable degree of violence; though the grown-up individuals of the family had it with that degree of feverity which more generally prevailed.
ARTICLE XLIX.

From Mr. JAMES FIELD, Surgeon and Apothecary, Worcefter.

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\text { July, } 18030
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I. The Influenza.
2. I think I had an inftance occurred fo early as the Isth of January, which however, fo foon merged into a fit of gout, as to render it uncertain. The fecond decided cafe I was called in to was on the 14th of February.
3. During the months of March and April.
4. Early in May it declined, but did not perhaps totally difappear, during that month.
5. Early and extreme debility, a diftreffing cough, expectoration frequently bloody; bloody mucus difcharged often from the nofe, and continuing, in fome inftances, long after the other fymptoms had difappeared; violent pains in the head or back, or both, entire Ff3 lof 3
$43^{*}$
lofs of appetite; the pulfe weak, quick, and fometimes uncommonly irregular.
6. The fymptoms, (which in moft difeafes are governed by age, habit, and temperament,) varied as little in different individuals, as in typhus, or any other continued fever.
7. In no inftance that I witnefled; although fome elderly perfons appeared to be in great danger.
21. Afthmatic and peripneumonic complaints, which, combining with the Influenza, proved in fome inftances fatal.
22. I think not, from the circumftance of its happening in fome inftances to fingle individuals, in many, to two or three in a family at irregular and indefinite periods; and above all, from its thewing itfelf in a very flight manner, and in a few cafes only, in fchools, hofpitals, and houfes of induftry, fituations certainly the mof favourable for communicating contagious difeafes.
23. In our houfe of induftry, containing about 160 perfons, nearly one half of whom are children; not more than five or fix were affected, and thofe flightly, cxcept one, an
elderly woman, who has not yet recovered from the concomitant cough, \&c.

The daily avocations of a complicated practice do not admit of a particular attention to all the queries contained in the Society's Letter. The mode of practice, and its various procefs has been already fufficiently detailed.

As, however, the queftion whether or not the late epidemic was contagious, appears to be the mof important, it feems to me, that, if it bad been fo, the affirmative would be moft eafily proved; for, if contagious, we cannot but fuppofe it has fome defnite time and limits within which it mull produce its effects; as in the fcarlatina, fmall-pox; meafles, and other well known infectious difeafes. It would then happen, that when one or more perfons in a family had been violently affected with the diforder, the other parts of the family attendant upon them, and conftantly expofed to the hazard of infection, would be all falling ill nearly at the fame period, which, however, did not happen in any cafe, out of fome fcores that fell under my obfervation.
, ARTICLEL.

From Dr. CHARLES CAMERON, Worcefter.

$$
\text { June, } 1803 .
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1, 2. The late epidemic firft appeared here about the $4^{\text {th }}$ of March.
3. It reached its acme in the laft week of March, and firft of April.
4. I do not think it has yet quite ceafed (June ift), but its fymptoms now, are more like thofe of acute rheumatifm, and I have feen two cafes of men, in which the pains left the limbs, and the bowels were attacked with fymptoms of inflammation.
5. Pain in the fide extending to the back, rigor cortinuing for feveral days with little intermiffion, and though a little perfpiration came on in a morning, the chillinefs returned upon getting up, hoarfenefs, and drynefs in the throat, head-ach, much aggravated by the cough, which was very violent, and fometimes fpafmodic, attended in a morning with expectora-
expectoration of a yellowifh mucus, fometimes ftreaked with blood. Pulfe from 80 to 90 , never fo hard nor full, as to require, v. f. in fome cafes, the uvula, velum palati, and tonfils were covered with fmall aphthr, and the evacuations were highly bilious.
6. Plus, and minus, feemed to conftitute the chief difference.

7,8. I loft one young man, who, at any other time, I fhould have faid laboured under typhus. I faw no other inftance of fatality, except in a few whofe confticutions were broken down by intemperance and previous difeafe.
9. It attacked all indifcriminately.

1o. Rather more females, as they feem to conftitute the larger proportion of the population.
11. Calomel and James's powder in the beginning, aq. ammon. acetata, or faline draughts with a little fp. æther. nitros. while the feverifh heat continued, fquill. with extr. cicutr, and fyr. papav. albi, joined with mum cilage to relieve the cough, and finally to reftore the action of the ftomach, and confequently
fequently the ftrength, infus. gentian. compos.
12. Blifters had a good effect; I did not try any of the other remedies.
13. Till the appetite was reftored, chiefly fpoon-meats, and fruit, the drink confifted of barley decoction, tamarind, apple, or cheefewhey, and imperial.
14. Cool, and thofe who were able were fuffered to walk out of doors when the weather would permit.
15. Gradual amendment.
16. No.
18. No. Cough, languor, and debility continued long.
22. In my opinion it was not contagious. I faw but two inftances where the hufband and wife were both affected, and they too nearly at the fame time, to fuppofe they received the infection from each other: but many, where only one was; and fome inftances occurred, where only one perfon was affected in a family, confifting of 8 or 9 , this feems confirmed by the accounts from Perfhore and Droitwich, and by the difeafe commencing at different places, nearly about the fame
fame time. The only occurrence which fell under my obfervation, which may feem to militate againft this opinion is the following. In the beginning of April, the mafter of a family was feized with Influenza, attended with pain and fwelling in the knees, fince that time, a maid-fervant, the apprentice, the daughter, and the wife, have all been taken ill in fucceffion; though their complaints have chiefly been, pain and fwelling in the limbs and joints, without any catarrhal fymptoms; the cale of the young man, I have alluded to above, No. 4. he was removed to his mother's in the country, but has not communicated the diforder to any of her family. 23,24. In the Infirmary all the houfehold, II in number, were affected, but fo flightly, as not to require the affiftance of the phyficians of the houle; the fecond perfon affected, was taken ill 3 or 4 days after her bedfellow; the third about 10 days after, but her bed-fellow not till near a month afterwards; here the firft inftance was too foon. tc fuppofe infection, and the laft, in my opinion too late. Many of the patients alfo, in numbers generally from 54 to 60 , had the difeafe
difeafe flightly, but in 3 beds pretty clofe together, the 2 patients occupying the outcr beds, had the complaint, whilft the one in the middle efcapsd ; and in our houfe of induftry, where there are at leaft 130 people, not more than fix were affected.

The following are all the communications I have been able to collect, from the towns in this county.

Shipfton, fouth-eaft from Worcefter about 28 miles, firf began; firft week in March; has now ceafed; did not appear to be contagious, no epizootic complaint.

Evefham, fouth-eaft about I 5 miles - commenced the beginning of March; was not contagious; no animals affected.

Perfhore, fouth-eaft 9 miles, began roth March, not yet difappeared, not contagious, in one family of near 30 perfons, only one ill. Horfes difordered.

Upton, fouth io miles - the firit cafe of Influenza occurred the 28th of March; the laft, 20 th of April, not contagious; this opinion fupported by the cafe of a child in years of age, taken ill on 30th March, and who died on 2 If April, with every fymptom of typhus,
typhus, the toes, fingers, and lips black; and yet none of the reft of the family had any fymptom of the difeafe. Horfes were difordered both before the appearance of the difeafe, and during its prevalence.

Droitwich, north 7 miles, firft appeared about the 1oth March, ceafed the end of April; not contagious. In the reporter's own family, between 50 and 60 in number, only 8 had the diforder: it was by no means fo general in the town as in the country; during its prevalence, the cattle were unhealthy, cows and fheep in particular, and the farmers loft an unufual number of lambs. Cats alfo were affected, many of which died. I have not heard of any epizootic complaint in this town. Worcefter, 1 oth June, 1803.

Worcefter, 17 th June, 1803 .
Since I tranfmitted to you the account of the Influenza, I have received the following ftatements from the remaining towns in this neighbourhood, which, as they complete in fome points, the hiftory of the late epidemic, I prefume, may be acceptable to the Society.

Bromyard, weft from Worcefter i 3 miles. Firft appearance, 16 th March, not yet ceafed, I $3^{\text {th }}$ June, not contagious; no animals particularly affected.

Feckenham, north-eaft 13 miles. Some inftances occurred the beginning of February, has now ceafed, not contagious; animals not affected.

Bromfgrove, north 12 miles. Began the middle of February ; the laft perfon was attacked on the Ioth of May. My correfpondent fays, "I am clearly of opinion it was contagious;" but gives no reafons for fuch con-clufion-Previous to its appearance, horfes were attacked with fymyptoms, ftrikingly fimilar to thofe in the human fubject.

Bewdley, north-weft 14 miles. Firft inflance, 22d of March, ceafed in the town the latter end of April. A few miles in the country further north, it began later, and continued longer: from its univerfal prevalence, cannot decide whether it was contagious or not. Horfes about the fame time were unhealthy.

## ARTICLELI.

" Gentlemen,
"I fhould fooner have acknowledged the receipt of your letter, but phyficians being feldom confulted bere, except in alarming cafes, moft of the cafes of the late epidemic which I faw either were complicated with pneumonia, or had terminated in typhus. I therefore put your letter into the hands of fome of the beft informed men I knew, furgeons and apothecaries, whofe obfervations I now tranfmit to you.
"I am, gentlemen,
" Your obedient fervant, "G. PHILIPS WILSON."

Worcefter, July 3c, 1803.

## ARTICLELII.

From Mr. JOHN NASH, Surgeon, Worcefter.
2. About the 20th of February.
3. The latter end of March, and beginning of April to 20th.
4. The laft week in May.

5 and 6. A violent pain in the head, neck, fhoulders, loins, and limbs, rednefs of the eyes, fneezings, and inceffant cough, thin mucus was difcharged with the cough; in fome there was naufea, in others not; the bowels were rather coftive where the cough was violent; a lax fate of the body rather relieved the cough, and with a complete diarrhæa there was little or no cough; a degree of fever attended the continuance of the difeafe, which produced great debility and lofs of appetite.
7. No.
II. Gentle purgatives and mild diaphoretics, fuch as fmall dofes of calomel, camphor, and ture, and infufion of fena (if required) ; emetics were given if the ftomach indicated their ufe, but the above medicines generally cleared the primæ viæ.
12. Bleeding was not found neceffary in the true difeafe.
\#3. Such as is generally directed in all inflammatory diforders.
14. Warm.
18. No.
19. Greatly debilitated.
20. Change of air, and tonic medicines.
21. Such as had been before afflicted with inflammation of the thorax, and thofe who had been much weakened by former afflictions, became victims.
22. Not from perfons affected, for many in a family were difordered on the fame day, and within the farne week.
23. It did not affect all perfons in the fame houfe.
25. The city of Worcefter, and neighbouring villages.
26. North-eaft winds.
Vol. VI. Gg

## ARTICLE LIII.

From Mr. FRYER, Surgeon and Apothecary, Bewdley.

Answers to rome of the Queftions propofed by the Medical Society of London.

1. No epidemical diforder has appeared here, this laft fpring, that differed materially from the ufual difeafes of the feafon.
2. The firft cafes of Influenza, that occurred in my practice in the town of Bewdley, were on the 22 d of March, $1 \mathrm{SO}_{3}$.
3. The difeafe was very prevalent, and at its greateft height, during the $27 \mathrm{th}, 28 \mathrm{ch}, 29^{t h}$, and 3oth of March.
4. It declined much before the middle, and difappeared in the town before the end of April ; it continued in the country fumewhat later, particularly about Mamble, Kinlet, and over Areley, parifhes that are fituated to the fouth-weff, wen, and north weft of Bewdley.
5. The
6. The mof ufual fymptoms of the complaint were rigors fucceeded by much heat, anorexia, pains of the head and limbs, rednefs of eyes, very troublefome cough, hoarfenefs, dyfpnœa, pains of the cheft and fides, great faintnefs and proftration of ftrength, particularly about the third day, bowels genesally coftive.
7. The fymptoms did not vary much in individuals apparently of the fame habits, \&cc.
8. When unconnected with other difeafes, it was fatal only in one inftance.
9. The proportion of fatality was very fmall.
10. Aduits, perfons of the middle and better orders of life, were moft fubject to the difeafe, old people, and thofe who had been fubject to difeafes of the lungs, felt it moft feverely and fatally.

If. The mode of treatment, employed with the beft effect, was to give early in the difeafe, a dofe of calomel, with pulv. antimonialis and pulv. rhubarb, which generally occafioned vomiting, and fully emptied the bowels with much relief, febrile faline mixtures, oxymel fcillx, mucilaginous anodyne medicines to

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G g 2 \quad \text { allay }
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allay the irritation of the cough, rubefacients and blifters applied freely, when the pains of the cheft or fide, or the dyfpena were urgent; when the fever and thefe fymptoms were much abated, the infufum amarum and other remedies of that defcription were very ufeful ; the cortex peruvianus was only tried in one or two cafes, and in thofe it feemed to difagree,-bleeding was not had recourfe to.
13. An antiphlogiftic diet was recommended at the beginning of the difeafe, afterwards a more ftrengthening plan was adopted.
14. The room was directed to be kept of a moderate temperature, and the patient was defired to avoid extremes of heat or cold.
16. Relapfes were not fiequent.
17. Some patients recovered very rapidly, in others the recovery was flow, much debility remaining, and the cough, and dyfpnœa continuing fome time, and going off gradually.

In the few fatal cafes in which the lungs were previoufly difeafed, it terminated in peripneumonia notha.
22. When at its greateft height, the difeafe was very general, in fome families the whole than one or two, and fome families totally efcaped it, although they had communication with families in which the difeafe was prevalent.

July 26, 180 j.
A R T I C L E LIV.

From Mr. CUSTANCE, Kidderminfter.

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\text { June 21, } 1803 .
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1. Yes, one commonly known by the name of the Diforder, Nezu Delights, or Influenza.
2. It appeared firf in Kidderminfter, about the middle or latter end of "ebruary.
3. Towards the latter end of March, or beginning of April.
4. It ceafed to be a general difcafe, about the middle of May; but individual cafes have occafionally occurred, to the prefent day.
5. The mof urgent fymptoms were pain about the frontal finufes, dyfpnca, and cough, with fever.
6. Yes, very much. The difference, however, did not feem to refpect either families, equal age, fimilar conftitutions or different fexes, fufficiently to draw any conclufions.
7. To
8. To the beft of my own obfervation and other information, not more than fix perfons died in this town (containing a population of between 6 and 7000 ) purely of the Influenza; two of which were infants, under a year old, one a girl of 14, of a fcrophulous habit, one an old man of 70 , one a hard drinker and corpalent, another a fober man about 40 , whofe attack was clearly the Influenza, which in a few days, degenerated into typhus with petechiæ and fore throat.
9. Cannot determine, but certainly it was very fmall.
10. Perfons in the decline of life, the poorer claffes, and confumptive or pneumonic conftitutions, fuffered mof.
11. Cannot determine, but think the difference trifling.
II. The antiphlogitic.
12. Bleeding was not ufed, but in two or three of the moft urgent cafes of cough, and dyfpncea; antimonials and blifters were chiefly relied on, in the firft ftage, and the beft effects almoft univerfally followed the application of the latter in relieving the cough and Gg4 pain.
pain in the head. The fquill pill, ammonia pp., Scc. were often given, to promote expecloration, and the bitter infufion with fpt. ath. vitr, and very fimall dofes of tinct. opii were invariably beneficial in reftoring the ftrength and appetite.
13. Antiphlogiftic, at firf, more ftimulant and nutritive afterwards.
14. A cool one.
15. With profufe perfirations at night, dry cough, and extreme debility.
16. Not very-thofe that occurred ought perhaps to be rather confidered as arifing from indifcretion before the difeafe was removed, than from any frefh attack, though a few were certainly attacked a fecond or a third time.
17. Generally lefs fevere.
18. Few in lefs than a month, many mucls longer, and one gentleman did not recover his ftrength, nor was free from his cough, in lefs than ten weeks, though before a healthy man of about 36 .
19. Referred to the 1gth anfwer.
20. Referred to the latter part of the 12 th anfwer.
21. made
22. Made no particular obfervations enabling me to determine.
23. It has appeared to me to be contagious, for reafons ftated in the 24 th, and 27 th, anfwers.
24. No opportunity of obferving.
25. Generally in fucceffion, at the intervals of from four days to fourteen, and even twenty.
26. Kidderminfer is a crowded manufacturing town, ftands in a valley, upon the river Stour ; the foil very red fand, and furrounded with a foft rock of the fame, mixed with gravel. A canal alfo runs through the town, which communicates with Manchefter, and empties into the Severn at Stourport.
27. During the prefent year, moft frequently to an eaft or north-eaft.
28. Stourbridge, about 7 miles to the northeaft, was affected about a fortnight before Kidderminfter, and Bewdley, and Stourport, between 3 and 5 miles to the fouth-weft, about the fame period after. The inhabitants have daily communications with each other, from the trade of the town.
29. The barometer has varied little, during the year, between fair and changeable.
30. Have made no particular remarks.
31. Remember to have had the Influenza in 1782 , but was too young to make any obfervations.
32. No.
33. None worth communicating.

## ARTICLELV.

From Mr. HORNIBLOW, ShipRon upon Stour.

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\text { Julx I, } 1803 .
$$

1. At and about this place, during the month of March, we had an unufual degree of difeafe, the complaints were attended with much coughing, about one half of them were evidently inflammatory, morc or lefs requiring bleeding, others had great debility with much coughing and expecioration, but little fever, and the pulfe but flightly affected, it continued upon the fubjects of it about a fortnight before they could throw it off, it was not attended with fitting of blood.
2. I had at the time much coughing myfelf with great expectoration, but without debility or any other complaint (aged 4.1). My father (aged 64) of a ftrong conftitution had much coughing, great expectoration and great debility for about ten days, but his pulfe little affected,
affected, and he had but very little fever. In the fame houfe a woman (aged 60) had confiderable inflammation of her lungs requiring bleeding twice, fhe had great expectoration; and muft have died without the ufe of the lancet.
3. Very little fatal, except in fuch cafes as were confiderably inflammatory, and bleeding not timely ufed. In the cafes of great debility, coughing and large expectoration, with but little fever or quicknefs of the pulfe, which is the complaint particularly in queftion, almoft without fatality.
4. Do not recollect its affecting perfons under thirty years of age.
5. Bleeding in one cafe I confidered hurtfull, the blood not being inflamed, although the pulfe was ftrong.

I faw one perfon I confidered a convalefcent, foon get worfe and die, after the free ufe of infus. quafs. with t. opii camph.
18. They recovered very flow.
22. Am not able to fay it was contagious, I think it was not fo, our patients were ill in the fame houfe, at the fame time.
25. Ge-
25. Generally.
29. I believed at the time that the difeafe arofe from the keen north and north-eaft winds, which continued long, and very piercing.

## A R T I C L E LVI.

Erom SAMUEL ALLVEY, M. D. Saint Neot's.
It appears to be the general wifh of the medical world at this time to receive information from every quarter, upon the fubject of the prevailing epidemic, in order, as fully as pofible, to trace its commencement, continuance and fymptoms, and to inveftigate its contagious nature. Much has been faid and written upon this difeafe ; it is tolerably well underftood by moft practitioners, and the more clearly fo when it appears in its true and genuine form of Jyzocba epidemica catarrbalis, and it may feem to fome fuperfluous to write upon the fubject: nor is it my intention to take up much of your time, but fill I think with many others, that it is a praife-worthy underdertaking to bring forward our opinions and obfervations, and more particularly fo in thofe practitioners who have feen the greateft variety of cafes, and to lay down in a concife manner
that method of treatment which they have found beft to fucceed, as well as their difappointments and failures, that upon the reappearance of a difeafe fo univerfal, fo frequently diftreffing, and fo often fatal, we may be better prepared to contend with it, and enabled to call in the agency of thofe means, which were before found to be the moft ufeful.

I find by the minutes made in my cafe book, that during the months of December, January, and February, the fever called typhus, but particularly typhus mitior was by far more prevalent with us than any other acute difeafe.

A few cafes of both fearlatina fimplex and fcarlatina cynanchica appeared at the fame time, and feveral of thofe attacked with typhus, had at its commencement a flight efflorefcence upon the furface of the body, fometimes with, but more frequently without, a trifling degree of ulceration of the fauces; during the courfe of that time I only met with one inftance, in which the fever was accompanied with a confiderable fprinkling of petechia, particularly upon the lower extremities,
and that young man recovered. The forenefs of the throat in moft cafes went off in a few days, without at ail influencing the crifis of the fever. I find alfo by my lift of acute difeafes for January and February, that nearly one in four were cafes of typhus.

Towards the end of February acute rheumatifm with flight inflammatory affections of the nofe, throat, and cheft, began with us to be very general, and about this time in London, and its vicinity, the genuine catarrhus contagiofus fhowed itfelf as a very formidable epidemic, and foon fpread from the capital to the moft diftant provinces of the empire.

In my neighbourhood the month of March was ufhered in with this Influenza, together with a variety of other inflammatory affections of the different vifcera, for the moft part perfectly diftinct from each other, but poffefing many fymptoms in common, and almoft always attended with a greater or lefs degree of catarrhal fever. It cannot be furprifing, when we reflect upon the fubject, that at the time an epidemic fo very generally prevails, the difeafes common to the fame feafon analogous, and fo far acquire a mutual refemblance to each other; l obferved that by far the greater number of children, young people, and thofe of middle age had the complaint llightly, continuing from 2 days to 7 or 8 , and then it went off ilowly; but fome of them had a great degree of pyrexia with inflammatory fymptoms of the moft alarming kind, and this was obferved to be the cafe more in fome diftricts than in others*.

It fometimes happened, that this difeafe was accompanied, at its commencement, with a fever of the typhus kind, and when the catarrhal fymptoms were lefs troublefome than the fever, they would foon go off or be greatly diminifhed int the courfe of a few days; while the fever remaining under the type of typhus

* In moft parts of Bedfordhire, particularly in the towns of Bigglefwade, Potton, Gamlingay, and in the villages and hamlets around them. At the latter named place, I was told by the vicar a few days ago, the Rev. J. Hepworth, that he buried in the courle of a fortnight eleven people who all were faid to die of this difeafe, and the majority were children.

Gamlingay is a village containing about 500 inha* bitants.

Vol. VI.
Hh
mitior,
mitior, and fometimes gravior, continued to harafs the patient for a great length of time. -In elderly people this epidemic proved invariably obftinate, remarkably troublefome, and frequently fatal ; fhowing itfelf principally under the form of peripneumonia notha, and often, with the exacerbation of fever, would come on the moft diftreffing dyfpnœa, with little or no expectoration. Many of thefe people were troubled with a mot violent pain in the back, fometimes between the fhoulders, and often as low down as the loins, which would be among the laft fymptoms to leave them.

With refpect to my method of treating this complaint, excepting where the inflammatory fymptoms run very high, I abftained altogether from the ufe of the lancet. Demulcents, laxative medicines, gentle emetics, fudorifics, the faline mixture, and blifters, generally leffened the fever in a fhort time, and removed the inflammatory determination to the head, throat, and cheft; and when thefe were diminifhed or removed, and not before, my attention was then directed to the cough, and weakened ftate of the lungs. Mucila-
ginous, but not heating expectorants, with fometimes, if rendered abfolutely neceffary from the watchfulnefs being very much complained of, or fpafmodic dyfpncea being very urgent, opium in fmall dofes, repeated according to circumfances, and compounded with preparations of æther. The compound Burgundy pitch plafter applied, ad nucham aut inter fcapulas afforded thefe fymptoms often much aid, and in two particular cafes where the pain of the back before mentioned was very troublefome, gave great relief; to convalefcents a light infufion of the Anguitura bark with oxymel fimplex, and tinctura corticis cinchonæ proved a moft ufeful tonic and reftorative.

This has been the practice which I have followed with great fuccefs in the treatment of this epidemic, which, when accompanied with other affections of the fyftem, or complicated with other difeafes, was varied from time to time according to circumftances, and the urgency of fymptoms complained of, confequently that particular indication of cure termed by authors - " the mitigating of urgent fymptoms" was never loft fight of.

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\mathrm{Hh}_{2}
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During

During the months of March and April a great number of other difeafes, acute as well as chronic, have appeared and continue to arife, but by no means fo general within the laft fortnight ; all of which, owing I prefume to the peculiar conftitution of the atmofphere, prove not only more than ufually obitinate and tedious in their progrefs, but our patients, for the moft part, I find remain uncommonly long in a fate of convalefcence, before they can be pronounced perfectly recovered.

I much regret that my opportunities of information do not allow me to be more full and inftructive, but perhaps thefe efforts may prove a ftimulus to fome of our members to bring forward the fubject, whofe acquaintance with the difeafe is more general, whofe experience is more enlarged, and whofe obfervations have been more particularly directed to the inquiry.

Such, however, has been the unhealthy ftate of the country during the whole of this fpring, that it would be almoft an unpardonble omiffion for the members of any fociety, who profels to kcep a regifter of medical cafes and obfervations, to pals it by unnoticed.

This,
'This, gentlemen, will plead my excufe for venturing to lay before you this rude fketch and general outline of the ftate of the health of my own county and neighbourhood, as far as my acquaintance with it enables me, and I hope you will believe that in drawing up this account I have ftudied to be informing rather than eloquent, and to be ufeful rather than prolix.

Non quærit æger medicum eloquentem, fed fanantem. Seneca, Ep. 76.

> A R T I C L E LVII.

From Thomas girdiestone, M. D.
Yarmouth.
The firf cafes of Influenza which came under my obfervation this year, were on the 22d of laft January. They prevailed more or lefs from that time, in this neighbourhood, and were moft frequent between the 15 th of March and the 20th of April. The difeafe then began to decline, but four cafes of true pneumonia, which occurred laft Friday, June 17, to patients of Mr. Downs in this town, tend to prove that this difeafe has not yet ceafed, though it may have changed a little its fymptoms. One of the patients I have feen, and the blood which had been drawn. His fymptoms were decidedly inflammatory, and the blood was of a buff colour, with the ftrongeft cup-like contraction I ever faw. All thefe cafes yielded to bleeding, antimonials, and a diet of broth, without any wine,
fpirits,
fpirits, or malt liquor, during the febrile fymptoms. The common fymptoms of the Influenza were hoarfenefs, fneezing, defluxion from the nofe and eyes, chillinefs, heavinefs, and pain of the head, efpecially over the eyes, cough, pain of the back, ftitches of the fide, with more or lefs of quicknefs of the pulfe, and whitenefs of the tongue, heat of the fkin, and rheumatic pains. In fome there were forenefs of the throat, or eyes, ftiffnefs of the neck, great lofs of voice, icteric-coloured urine, and whitifh motions;-and in children a remarkable drowfinefs almoft univerfally commenced with the difeafe. Thefe fymptoms very rapidly changed in fome patients to the more alarming fymptoms of effufions in the cheft. Clammy fweats, Atupid delirium, typhus-coloured tongue, frequent, feeble or interrupted pulfe, fometimes with diarrhæa.

This difeafe was very different in the patients who refided under the fame roof. The fymptoms of inflammation being almoft the only fymptoms in fome patients; in others all the fymptoms changed fo fuddenly as to require as fudden a variation of the treatment. In children, and women, who were not aged,
or otherwife difeafed, it was generally a mild difeafe. But in the aged and intemperate, or where previous difeafe exifted, it was variable, and alarming; for like moft epidemics it blended irfelf with all chronic difeafes. I have very great doubts whether the Influenza has ever been a fatal difeafe unconnected with other difeafes, or the too early and liberal adminiftration of opium, without the combination of either antimony, calomel, or ipecacuanha.

The proportion of fatality in this neighbourhood, I fhould think, did not amount to one in three hundred. For though fcarcely any of the inhabitants efcaped in this place, yet in the many, it was a difeafe of only 3 , or 5 days duration, and fo flight that the patients often recovered without any medicine or medical attendance.

Though no ages or fex appeared to be exempted from this difeafe, yet thofe who had laboured under difeafed vifcera generally feit it moft feverely. But there were fome exceptions to this obfervation. As, but few of cither lex efcaped this difeafe, and as there are more females than males in the kingdom,
in courfe more females than males laboured under the difeafe. Blifters, antimonials, and calomel, were fnund very ufeful medicires, provided that they did not produce too much evacuation. I was feldom called early enough to try the effects of bleeding. There were fome few cafes, where I think it might have been tried with fafety. Full vomiting feldom formed a part of my practice, naufeating medicines appearing to me to be more ufeful. But in fome patients the fymptoms varied fo rapidly as to occafion a very oppofite mode of treatment. The worit cafes appeared to me to have arifen from the too early adminiftration of opiates, which if uncombined with antimony, ipecacuanha, or calomel, hurried the fymptoms into thofe of typhus pneumonia. To a patient in this ftate, after volatile alkali, fmall dofes of opium and confectio aromatica had failed fo completely, that the patient could not inflate his lungs or fwallow more than a tea-fpoonful at a time, the following draught, given every three hours, feemingly produced his recovery; for after every draught, he was found to breathe better.
R. Mofch.
R. Mofch. ver. $\mathrm{g}^{\mathrm{r}}$. x. Tinct. Thebaic $g^{\text {ts }}$. v.
Ammon. pp. $\mathrm{g}^{\mathrm{r}}$. vj. mucilag. gum. arabic. $3^{\text {fs. aquæ puræ }}$ ziijfs. m. Hauftus.
Lemonade, oranges, fago, and broth, were found generally beft for the diet, while the tongue had a whitifh fur. When the tongue had more of the typhus appearance, winewhey, beaf-tea, and Port wine, were ufed.

The greateft number of children, who were under my directions, required no other medicine than as many oranges as they chofe to fuck.

The rooms were never regulated by the thermometer, but they were defired to be kept rather cool than otherwife. And as I never faw the benefit of preventing patients from lying down under any fever, I never recommended them to fit up till the fymptoms of fever difappeared.

The ufual termination of the fever was like that of a common catarrh, by the expectoration of a pus-coloured mucus, precipitation in the urine, and fcaling off of the fur from the tongue. But the feeblenefs of the thighs, back, and pains of the ankles, were generally
generally felt with more or lefs of fpafmodic cough for fome time after the termination of the fever. The relapfes were but few. When relaples did take place, the fymptoms of debility very foon came on. Moft of the convalefcents felt themfelves weakened for forme time, with the pains of the ankles, back, and thighs, and many of them had periodical returns of cough, or unpleafant feelings every 2 d or $3^{\mathrm{d}}$ day; and in thofe who were previoufly confumptive, their fymptoms degenerated into hectic fevers with mucus or purulent phthifis. The cough, which remained in many for fome time, was often of the fpafmodic kind, and increafed or diminifhed as the appetite for food improved or difimproved.

The treatment which fucceeded beft during the convalefcent ftate, was that which improved the appetite, and quieted the cough. Such as zincum vitriolatum, and extr. thebaic. pil. c. fcill. with extr. thebaic. infuf. rofæ, with tinct. thebaic. or medicines with myrrh, ferrum, ammonials, and extr. thebaic. or ammon. with bitters. The concomitant diforders which appeared to combine with this endemic,
endemic, fo as to render it moft fatal, were thofe of old age, intemperance, or phthifis.

The prefent Influenza has not furnifhed me with a fingle fact to lead me to believe that it is a contagious difeafe. Numbers in the fame day were attacked, who had no communication with each other. And in the worft cafe which I faw of this difeafe, where the typhoid fymptoms were fo evident, the nephews and niece, who night and day nurfed the patient for four or five weeks, all efcaped without the flighteft fymptom of the difeafe. With the greateft number of children, \&c. who refided in fchools and other crowded places, this difeafe paffed only as a common cold.

Numbers in the fame houfe were attacked on the fame day, others were attacked at the intervals of 12 and 24 hours, and fome few at the $3^{\mathrm{d}}$ or $4^{\text {th }}$ more diftant day. Yarmouth and its neighbourhood are very much expofed to the north-eaft, and north-weft winds.

The Norfolk and Suffolk fides of Yarmouth were at the fame time labouring under this endemic, and the more the facts of this difeafe
eafe are examined, the lefs reafon there will be found to fuppofe, that this endemic was regulated by intercourfe.

In the mals of patients this difeafe differed but little from former Influenzas. In fome the fymptoms of debility came on more rapidly and lafted longer than in any preceding Influenzas.

During this epidemic, I have not heard of any epizootic complaint exifting in this part of the country.

I fhall annex an abftract from a meteorological journal, which has been kept in this town from the commencement of this year to the prefent period.

> A R T I C L E LVIII.

From Mr. WEBSTER, Denham.
June ig.

Ift. Queftion. No epidemical difeafe prevailed in this neighbourhood during this fpring, excepting the meafles which were attended only with the ufual fymptoms, and were not fatal.
2. The Influenza commenced here about the 12 th of March.
3. Moft predominant about the fecond week in April.
4. It began to ceafe, in the firft week in May.
5. It was attended with great drowfinefs, proftration of ftrength, dry cough, and fometimes the breathing painful, though not to a confiderable degree.
6. I faw very little variation in the difeafe, excepting fome individuals being much lefs affected than others.
7. It
7. It certainly has been fatal, when not connected with any other difeafe.
8. We loft about four (to the beft of my recollection), but I cannot fpeak to the proportion of the whole, nor the number we ourfelves attended.
9. In clderly people and infants it feemed moft fatal.
10.
II. A folution of opium in volatile alkali, given in fmall dofes, and repeated every four or five hours, feemed in general the beft plan of treatment.
12. We did not bleed in any inftance, but have underftood where that has been done, or fpontaneous hæmorrhage has taken place, the patient has been flow in recovery. Emetics were in fome inftances beneficial.
13. Animal food or broth, with about a pint of wine, in the courfe of 24 hours was allowed.
14. Our patients were kept in the open air, as much as the weather would permit.
15. I obferved no particular fymptom in its termination, but left the patient in great
debility, which required much time to recover.
16. We certainly had fome cafes of relapfe, though not frequent.
17. The fymptoms in the relapfe were like the firft attack, but not of fo long duration.
18. No.
19. Already anfwered.
20. Bark, vitriol, and Port wine.
21.
22. The Influenza does not appear to me infectious, no otherwife, than perfons breathing the fame atmofphere, may fuffer the fame diforder. I do not recollect any medical man in this neighbourhood being much, if at all, affected by this difeafe.
23. I attend a large houfe of induftry, but the paupers thereof had very little of this difeafe.
24. This difeafe has paffed through almoft the whole of private families, though very large.
25. I obferved inhabitants of dry as well as marfhy fituations, both equally afflicted with this diforder.
Vol. VI.
I i
26. North
26. North and north-eaft winds chiefly prevailed.
27. I have no reafon to think intercourfe has in any meafure increafed the difeafe.
28. I did not keep any notes of the weather, not expecting any application on this fubject.
29.
30. I recollect the Influenza, (I think in 1774 ;) was then apprentice in Norwich, the fymptoms were more flight, and of muck fhorter duration, the diforder giving way in a few days to antimonials, or any other diaphoretic medicine.
31. Previous to the appearance of Influenza, I underfood there was fome contagio:s diforder among the horfes.
32. I obferved that thofe patients who kept their beds, and in whom profufe perfpiration was continued, or who futfered large evacuam tions, were moit flow in their recovery.
A R T I C L E LIX.

From Mr. CROWFOOT, Beceles, Suffolk.

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\text { June 22, } 1803 .
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We have been vifited by the general epidemic termed the Influenza, but by no means to that extent, or attended with the mortality defcribed by fome practitioners to have occurred in the metropolis, or in other large and crowded cities.

It firlt appeared with us in the beginning of March, might be confidered at its greateft height in the month of April, and to have continued, in the whole, about two months.

Moft were feized fuddenly and complained of lightnefs, or giddinefs in the head, naufea, or lofs of tafte, frequent chillinefs, a general tendernefs of the body and limbs, as if nightly bruifed. Catarrhal affections generally fucceeded, and attended throughout with roughnefs or forenefs in the throat. - The cough extremely troublefome, great fenfe of Ii 2
weaknefs,
weaknefs, and an early appearance of whitenefs on the tonguc, which feemed characteriftic of the difeafe.

The fymptoms varied much in different individuals fome complained of deafnefs, others were feized with obfinate vomitings, and particular irritation in the bowels,-but the moft urgent fymptoms were peripneumonia, and in fome, cafes of phthifis evidently accelerated the death of the patients.

I do not know it has proved fatal in any inftance unconnected with other difeafes; nor that any age, or clafs, or conftitution was exempt from the difeafe.-Servants employed in hufbandry, or in the open air, were equally liable with thofe whofe bufinefs confined them within the houfe, and vice verfa.

As to medical treatment, emetics, and gentle aperients were firft employed, opiates afterwards, joined with expectorants, had commonly a good effect, and blifters upon the cheft proved very beneficial in cafes of violent pain, and difficulty of breathing-very young fubjects were immerfed in the tepid bath with manifeft advantage-from the great weaknefs in general complained of, bleeding was rarely
recommended. After the firft day or two, light animal broths, \&cc. were allowed, and a moderate ufe of wine; and with refpect to temperature, the feelings of the patient were confulted, and it was regulated accordingly.

From the extreme variablenefs of the weather, and the debilitated ftate of the convalefcents, relapfes were very frequent; and in many inftances the difeafe ended in the form of an intermittent.

The* Cinchona, Cafcarilla, and other tonic remedies were employed, with the vitriolic acid, to check thofe profufe perfpirations which frequently fucceeded the complaint-thefe, with the occafional ufe of chalybeates, and a fuitable nutritious diet, were the beft reftoratives.

Two fatal cafes of cholera occurred which were apparently blended with the reigning epidemic ; and indeed it feemed to increafe

* I have lately made ufe of the broad leaved willow bark, (recommended by Mr. Wilkinfon, of Sunderland, in a late publication, and though my experience will not allow me to fpeak decidedly upon its merits, I have reaSon to believe it may prove a valuable medicine.
every other difeafe which exifted at the time of the attack.

It appeared to me the Influenza was not contagious, becaule medical men and nurfes generally efcaped the difeafe-that although feveral perfons, and fometimes a whole family, were affected by it, it was not in that fucceffion, or at thofe intervals, which might reafonably be fuppofed to depend upon conta-gion-and that often an individual or two, only were affected in large families, though conftant intercourfe nas lept up with the healthy perfons under the fame roof.-On the other fide it ought not to be conccaled, that in two or three inftances a cafual vifitor of the fick was very herily after affected with the malady, and it was attibuted, by the individual, to this communication.

The fituation of Beccles is on the banks of the Waveney, confiderablyabove the level of the riser, and is generally accuunted a healthy town-it is diftant in a direct line, about eight miles from the fen, and is ex, fed to the north and eaft winds.-It is worthy of remark, that Loweflofft, which is one of the neareft points of the en At, was very litele, or not at all, affected with Ir.flucnza, when much indifpofition prevailed
prevailed with us, notwithftanding the great intercourfe between the two towns.

I have nothing to obferve on the analogies of former Influenzas, one of the laft having happened when I was in India; nor did I notice any epizootic complaint previous to, or during the prevalence of the difeafe.

For the following meteorological obfervations, I am indebted to the journal of an intelligent and worthy neighbour, who is an accurate obferver of the weather-his thermometer is placed on the north wall of an open room, and differs about four degrees from the fcale of Farenheit. I have taken the extreme height and variation for the laft four months, and the general direction of the winds which have prevailed; but fhould it be thought neceffary to tranfmit particulars, the whole fhall be copied, and fent to the Society.

The fummer and autumn of 1802 were unufually dry, and there was little frolt before the end of the year.

In January 1803 , the weather continued mild until the ninth, the latter part of the month was fharp and frofty, with much I i 4 wind,
wind, chiefly from the eaft and north-eaft. Thermometer during the month from 54 to $42 \frac{1}{2}$.

February, the froft continued to the feventeenth of this month, and the navigation of the river had been ftopped by the ice, from the ninth of laft month.

After the 17th the weather was very mild, with much wind varying from the north-eaft to the north-weft, and the laft part fouth-weft and weft. Thermometer $54 \frac{1}{2}$ to 44 .

March was fevcrely frofty the firft part, the latter very fine and mild, good fpring weather with very little rain, Wind extremely variable and boifterous in the former, blowing a gale on the 7 th and Sth, from the north-eaft ; the latter part fouth-weft, caft and north-eaft. Thermometer 6 I to 47 .

April, mild and pleafant the firft part, very windy and very cold afterwards with hail and fnow. Wind from the fouth-weft, and fouth-eaft to the north-weft and north. Thermometer 6 I to $52 \frac{\mathrm{~T}}{2}$.

May, this month was windy and cold, with frofty nights in the firft part; the laft week fome fine fhowers with fofter air, though weft, changing for fome days to the north and north-eaft, and returning in the laft week to the fcuth-weft. Thermometer $62 \frac{\pi}{2}$ to $54^{\frac{\pi}{2}}$.
ARTICLELX.

> R. WHITE, M. D. Bury St. Edmund's.

The epidemic called Influenza, in mof parts of the neighbourhood of Bury St. Edmund's, except in the complicated ftate of it, was by no means fevere. Few there were who called for my afliftance, exclufive of thofe who were weak and infirm, or fubject to chronic complaints. In the carlieft flage of the diforder fimply and alone, therefore, I am not able to give anfwers to feveral of the queftions fated, with the precifion I could wifh: more efpecially with refpect to its origin and progrefs in thefe parts. For thefe and other particulars, I am obliged to feveral of the faculty, in and about this town; who had a better opportunity of noticing them. With this preliminary I readily offer the refult of my praclice in this diforder, and of my earneft inquiries.

Queries. 1. The common difeafes in the months of January and February previous to the Influenza, were catarrhs, rheumatifm both chronic and acute, meafles, and a few nlight remaining attacks of fcarlet fever.

2,3. The epidemic was obferved in this place, about the firft or fecond day of March ; in fome of the neighbouring villages fooner, in others not fo foon. About the 20th of that month it became pretty general.
4. Was at its greateft height about the firft week in April ; and entirely difappeared in the begirning of May.
5. The moft urgent fymptoms catarrhal, and peripneumonic, with flight inflammatory action, fpafmodic cough, uncommon debility; other more general fymptoms were, dull mufcular and membranous pains in the head, neck, back, and joints; and wirt the dyfpeptic, finking in and about the præcordia.
6. Symptoms varied in different individuals, principally according to the nature of the conftitution and habits.

7,8. Fatal only in one inftance unfer my care, when unconnected with any other caufe; and that in a ftrong healthy aged perfon, with
with marked fymptòms of peripneumonia vera.
9. Middle-aged and infirm, relaxed perfons, moft prone to the difeafe.
10. No abfolute difference with refpect to fex.
II. Treatment, gentle diaphoretics prepared with aq. ammon. acet. mif. camphor. and fyr. papav. a. as neceffity required, foon after the attack; and at other times, during the feverifh fymptoms, blifters and expectorants occalionally; neither bleeding nor antimonials, fometimes pulv. ipecac. comp. with calomel at night, and gentle aperients.
12. Very few of the praclitioners in this part, either bled or gave antimonials, except on preffing occafions; both which means, although attended with momentary relief, they conceived were productive of increafed debility: even at the firft apparent inflammatory action.
13. Moderate diet agreeably to conftitutional health.
14. Moderate temperature moft fuitable.
15. Ufually terminated by perfpiration, expectoration, or a copious fediment in the urine,
urine, in a few individuals, by a flight diarrhea.

16, 17. Few relapfes, except in the complicated fate. Relapfes fimilar to the original attack, and proportionably lefs fevere; but lafting, and attended with more debility.
18. Convalefcents, with low regime, recovered but flowly.

19, 20. In moft perfons the attack was fudden, with remarkable debility, in all was fucceeded by it. The fubfequent treatment, a generous diet, light tonic bitters, decoct. or infus. cor. with due attention to alvine dejection; moft habits having been troubled with coftivenefs.

2I. The attack and progrefs commonly allied to the peciliar habit of body. Delicate and relaxed habits fubject to catarrhal fymptoms, and fpafmodic irritating cough; bilious, to retching, and painful affection in the ftomach, and bowels; each, with wandering and aching pains in the head, neck, and joints; afthmatic patients, with increafed peripneumonic fymptoms, and fuffering moft. In general, the tongue white, the pulfe quicker than ordinary, flight chills, but no fharp rigor, excepting No,

No. 7; irregular pains, laffitude, and extraordinary debillyy; with fome defluxion from the eyes ; cough, dull pain in the cheft, and over the eyes with inof perfons.
22. Not contagious; from partial attack in mof families, and non-communication to the major part of large families.
23. The difproportionate number was particularly exemplified at the three principal boarding-fchools, in this town. In one confifting of 72 boys, and 8 domeftics; one only of the latter, and not more than 5 boys were attacked with the common fymptoms, two of whom kept their beds for a day or two at the onfet. In another fchool of 30, with domeftics, not more than 4. And in a third of 50 young ladies, with teachers, and houfehold fervants, no more than 3, all very flightly affected. Each of thefe houfes had not long before been vifited with the meafles. Day fcholars were indifcriminately admitted, feveral of which clafs were affected with the epidemic.
24. There were a few inftances of perfons feized on the fame day in the fame family;

Several at flight intervals, when at its greateft height.

25, 26. Diverfity of foil in and about Bury. The fie of the rowis, principally a ftratum of lightearth over chalk; the fame in general is that of the villages in the flat open country, for feveral miles: thefe expofed to north, north-eaft, and north-wef winds. That, of villages in oppofite direction, and in an inclofed part, is a loamy earth on clay. Some difference in the effect of this diforder has been remarked; namely, that the inhabitants of the town were proportionally lefs affected both in number and fmyptoms, than thofe of the country around; this alfo appears to have been the cafe in fome degree, in favour of the bleak open country, with refpect to the inclofed part of the nefghbourhood.
27. Not regulated by intercourle; the inhabitants of a village very near to Bury were latert affected; by ten days at leaf.
28. My worthy friend Capel Lofft, who lives at Trofron, a village 6 miles diftant from Bury, has favoured me with his metcorological remarks; whofe obfervations did not extend to that of the winds; but I very
well remember, that, about the time of the epidemic firft appearing in this quarter, the air was culd and frofty, and the wind fet in from the north and north-eaft.

I muft beg leave again to obferve that I was generally called in to perfons labouring under the combined ftate of the diforder; in two of which cafes the fymptoms were extremely indirect, and violent.-One in the laft ftage of pregnancy, the other foon after delivery. Both taken fuddenly with catarrhal fymptoms, pain in the left fide, fhortnefs of breath, conftant and irritating cough, with inceflant retching, attended with a weak irregular and innumerably quick or fluttering pulfe, for feveral hours together; fight delirium during the violence of the fymptoms, and profure clammy cold fweats; apparently dying. The firft woman was delivered of a dead child on the third day after the attack, and died on the 5 th. The other patient was put to bed with the Influenza, and, on the fifth day after delivery, was fuddenly feized with pain as fhe termed it at the heart; and the fame kind of fymptoms as the firft ; but with flight remiffions. Happily fhe obtained relief
relief from the means ufed on the former occafion. Blifters on the fide, back and ftomach, bolus with fal fuccin. camphor and conf. aromat., draughts with mift. camphor., tinct. opii and fpt. æther. vitr. comp., nutritive diet, and afterwards infuf. cort. per. with light bitters.

June II, 1803.
ARTICLE LXI.

From Mr. GUDFREY, Surgeon, Coggefhall.

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\text { June } 16 .
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The difeafe in this neighbourhood made its firft appearance the beginning of February, was moft prevalent in the month of March, and had nearly difappeared by the end of April. The firft and general fymptoms were chillinefs followed by more or lefs of heat, remarkably white tongue, much pain in the loins and limbs, but very fevere in the head, chiefly forehead. It is a little fingular, that in a very confiderable number of my patients the pulfe was rather foft, and certainly not quickened, though the tongue was white, and much loaded, the urine depofiting a copious and red brick-duf-coloured fediment, and as much confequent general debility, as where there had been a great degree of increafed action in the vafcular fyftem. There was in almoft
almoft every cafe more or lefs inflammation about the lungs; fome few (one with hæmoptoe) required the ufe of the lancet-an expectoration of thick mucus, exhibiting a very purulent appearance, foon came on, and continued fome days without affording relief fo foon as expected. Thofe perfons who had been previoufly fubject to cheft complaints were the greateft fufferers; a total lofs of appetite was one of the moft regular and common fymptoms. Relaples were not unfrequent, very fimilar to the original attack, and as fevere.

The treatment of the difeafe was nearly as follows; to fome I gave an emetic, but to the far greater number I gave from 5 to 7 grains of the pulv. antimonialis at bed time, and repeated it for one or two nights following, if judged neceffary, allowing a free ufe of fmall cooling liquids, with feme mild diaphoretics, and an occafional gentle purge-if the cough was very diftreffing, leeches were applied to the ftomach, and a blifter, foon after their removal, on the fame fpot, avoiding as much as poffible all oily and thick medi-cines-it was found neceffary to relieve the

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cough by opiates, which was very fafely done bythe fyr. papav. alb. and fpt. æther. nitrof. in a mixture of three parts of the former to one of the latter, by the pulv. ipecac. comp. and tinct. opii camph.-Leeches to the temples were alfo of fervice, when the pain in the head was unufually fevere-fome tonic medicines were afterwards given, which much affifted in reftoring the general health : the above plan, in conjunction with the vis medicatrix natura, was very fuccefsful; for out of fome hundreds of cafes I loft only two, and thofe with high pneumonic fymptoms, between 50 and 60 years of age, though I am forry to add that I now have two hopelefs ones of phthifis pulmonalis, which the difeafe in queftion, I doubt not, laid the foundation of.

The obfervations I made on the progrefs and nature of the Influenza, lead me (I ftate my opinion with caution) rather to confider it not contagious by animal infection.

## A R TIC L E LXII.

From Mr. JOHN FISKE, Saffron Walden, Effex.

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\text { June 18, } 1803 \text {. }
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The epidemical diforder commonly termed the Influenza, prevailed in this town and neighbourhood during the fpace of about three months. We firf obferved its appearance about the middle of February, and it terminated the beginning of May.

In general the fymptoms were fo mild as to require but little medical affiftance, and was confidered, till it became more obferved, to be the common occurrence of cold. Perfons above the age of maturity experienced its effects, and even to an advanced fate of years. Very few perfons younger than twenty were attacked with it. Some were affected by it only for a few days, and in the more fevere cafes it confined them for two or three weeks. The proportion of females was confiderably larger than males. The generality of patients K k 3 under
under my care were firf fenfible of having received its influence by pain in the loins, naufea, head-ach, and alternate fhiverings and heat, efpecially perfons between the ages of twenty and thirty; coughing, fneezing, and the difcharge of a fine limpid fluid from theif noftrils fucceeded. The difcharge of lymph from the noftrils in one lady was fo great, that fhe jokingly faid fhe needed a fponge to be kept conftantly at her nofe, to catch it. Perfons fubject to pulmonary complaints fuffered confiderably, efpecially the afthmatic; and one patient of that defcription was attacked with the cynanche trachealis and was nearly fuffocated, but recovered-he was bliftered upon the cheft, and over the trachea. It proved fatal to very few. In fome families the generality of them had it, and fome perfeally efcaped.

Very few under the age of fixteen came under my confideration.

One lady, at the advanced age of eightyfix, had it, and died in a fortnight, apparently more from an infirm ftate, than any baneful influence of it. Many very old people recovered from it; and it feemed un-
connected with other difeafes, except thofe of the cheft, which I have before-mentioned. Many that had it flight complained much of debility for a week or two afterwards, but in general recovered without medicine. Its mode of termination was quicker in thofe where the attack was more fevere. Few experienced relapfe to my recollection, to any confiderable degree. The diet was as is in general directed in feverifh complaints. It happened more particularly to perfons enjoying the comforts of life, or poffibly thofe of a lower order fhifted without application to medical practitioners in fome degree.

The mode of treatment which I practifed, when called in upon the firt attack, and found the fymptoms of an acute nature, fuch as pain in the loins, head, and naufea, was to exhibit a fmall dofe of calomel joined with the antimonial powder and made into a bolus; it generally operated upon the inteftines, and upon the exhibition of a fecond dofe, in a few hours the patients became relieved, and I had only to direct a diaphoretic draught, compofed of aq. ammonix, pulv. cont. comp., \&cc. to be taken once in a few hours; and fome expedient to

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relieve coughing, as emulfions and linctus. I ufed no opiates. In afthmatic cafes, paregoric and fquills; in fome blifters, and I do not recollect in any one cafe to have found it neceffary to have had recourfe to bleeding.

## A R TICLE LXIII.

From Mr. HASKER, Woburn, Bedfordhire.

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\text { July 2, } 1803 .
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I confefs myfelf aftonifhed when I both read and heard of the prevalence of a difeafe fo alarming to the faculty, and fo dangerous to the community in various parts of England, as the one to which the name of Influenza has been affixed, has been. I muft believe what has been affirmed by credible authorities, or my own practice would induce me to fuppofe, either that medical men have not been perfectly accurate, or that they have exaggerated circumftances; if I may form an opinion from what has fallen under my obfervation.

In this neighbourhood, ficknefs has certainly been rather more general than in any preceding fpring, but this appeared to me obvioully to arife from the very variable fate
of the atmofphere, fome days being very warm, and others remarkably cold. Hence a variety of difeafes arifing from a determination to particular parts. Thofe which fell under my notice were either pneumonia, pleuritis, or cynanche tonfillaris, chiefly the former; both were very eafily fubdued by the lancet, by flannel to the furface, and by a treatment ftrictly antiphlogitic. I remember but one inftance in which the difeafe terminated fataliy, and this was evidently pneumonic. The late fpring has borne peculiarly hard on afthmatic perfons; although the fruggle has been very fevere, yet the event, under bleeding and bliftering, and medicines compofed of fquills, has been univerfally fuccefsful, at leaft in this neighbourhood.

I have had feveral cafes of typhus at this feafon, as at every other, but it feemed not to have any connection with the Influenza as it is called, but was, at its commencement, either fynochus, or typhus.

## A R TICLE LXIV.

From Mr. LUCAS, of Hatfield.
The Influenza appeared in Herts, certainly as early as the middle of February ; and, indeed, I am perfuaded I faw it in a family of children, within a mile of Hertford, the very firft day of February; the difeafe had with them every characteriftic fymptom that it afterwards difcovered, and appeared clearly contagious. It however became general towards the end of the month, was at its greateft height between the roth and 25th of March; after which time it declined rapidly, and had almoft difappeared by the firft week in April; none being attacked with it after that period.

I have no hefitation in declaring it contagious, as repeated inftances occurred of its attacking almoft every individual in a large family in fucceffion, with the intervention of (I think) generally two days. It alfo appeared
that few efcaped it who were more immediately about the perfons of the fick; feveral inftances however occurred, where feveral in a family were attacked almoft inftantaneoufly, with ficknefs, or violent pain and diforder in the bowels.

The various and complicated forms, with which this difeafe exifted in the great numbers that laboured under it, make it difficult to defcribe its fymptoms, which exifted in every degree from the mildeft, to the moft aggravated fate-there was however a fufficient connection between them to allow the whole to be traced to a common caufe whatever that may effentially be: it feemed capable of exciting great irritation in every part of the body; rarely amounting to active inflammation, but always inducing more or lefs of febrile diforder in the fytem, and was followed, almoft invariably, by extreme languor and depreffion of the animal powers.

I thall not trefpafs on your time by enumerating the fymptoms, or giving you in detail the mode of treatment that I employed, which was adapted to the relief of the more urgent fymptoms, as circumftances pointed
out, conceiving it almon impoffible that any regular plan could be laid down for the treatmerit of a difeafe the moft irregular poffible. One circumftance, however, which I was ftruck with early in the courfe of the difeafe, regulated in a great meafure my treatment of it, and determined me to be cautious in the ufe of evacuants, particularly of bleeding.This was the uniform want of force and ftrength of the pulfe, and very frequently there appeared no derangement of the arterial fyftem at all correfponding with the other fyimptoms. Under this impreffion, I only employed the lancet in two cafes; in one, I thought it manifeftly detrimental; in the other, where there were fymptoms of active inflammation of the cheft, I was difappointed in finding the expected relief from it; the pulfe being as much as 150 in the minute. I believe this patient owed her life to the friendly aid of the digitalis, which had the moft fpeedy and decidedly gnod effechs.

There was another variety of pulfe not unfrequent, this was extreme flownefs of pulfe, which was alfo weak; in feveral perfons there were only 60 pulfations in the minute;
and in one lady, not naturally fubject to flow pulfe, it was at 58 for many days, and did not amount to 65 for three weeks. - This lady complained of unceafing and violent pain in the head, which was not, as ufual, relieved by blifters; after a continuance of pain for about a fortnight, fhe was fuddenly relieved by a difcharge of blood and fetid purulent matter, which iffued abundantly from the nofe, and, as the affured me, from the ears alfo; the did not, however, quite lofe the pain or fenfe of weight, but an exceeding ftupor and giddinefs remained, with a total loathing of all food, except acids, a tafte very frequent in this epidemic; the was with difficulty aroufed from her fate of extreme languor with wine. The volatile alkali was given in fubfance with aromatics and bitters; She however recovered flowly, and was teazed, during her convalefcence, with a great number of hard painful bumps in the fcalp, and a fucceffion of whitloes on the fingers and toes.

In the firft three weeks of the diforder, cough was a conftant fymptom, and was for the moft part extremely violent, and almoft inceffant. The weather having been previoully
vioufly feverely cold, and there being ftill, bleak north and eaft winds-during the laft two or three weeks the cough was much lefs frequent, and very much lefs troublefome to the patients, probably owing to the mild weather that prevailed at the end of March, and beginning of April ; and thofe attacked in this latter period generally fuffered more in the head, ftomach, and bowels. The difeafe, at this period, frequently affumed the form of typhus, and was protracted to as great a length as that difeale; but even where the febrile fymptoms terminated, as happened in the generality of cafes, within a week, an exceffive lownefs was left behind, which rendered them incapable of the leaft exertion, and was removed with difficulty. Wine feemed ufful in this fate, and myrrh and other warm bitter medicines were alfo ferviceable. This fate of extreme weaknefs appeared not fo much to confift in an exhauftion of mufcular power, as in a general torpor and want of energy in the fyftem, and was probabiy connected with the weak fate of the digettive organs, which was remarkable throughout the whole courfe of the difeafe,
and was generally the laft fymptom that difappeared; there was in almoft every cafe an utter loathing of animal food, and a defire for acids.

The cough, which was fo general when the epidemic firft appeared, was very unlike the cough of the common catarrh; the fits being more continued and violent, much refembling the hooping-cough. In one inftance of a woman of an irritable habit, and in a fate of debility, the cough increafed to fuch a degree on the third day of the difeafe, that it literally was inceffant for feveral hours; when it was fucceeded by hiccup for half an hour, the cough then returned with the fame vehemence; blifters and the ammonia ptt. in dofes of fix grains, with $\frac{\pi}{2}$ grain of opium every two hours, with the mufk julep fucceeded in removing that haraffing fymptom which had nearly hurried the patient out of the world; after fome time fhe had a relapfe, but the fame means again fucceeded in removing it.

I have not found relapfes frequent, and in general not fo fevere as the firft attack, being feldom more than a return of flight febrile rymptoms.

I am happy to fay that in the neighbourhood of Hatfield, though great numbers were attacked, it was not fatal, the mortality not being greater than ufual. The old, and thofe labouring under pulmonic complaints, fuffered moft feverely.

Within this laft month, I have met with a catarrhal fever in a folitary farm-houfe, exactly refembling the late epidemic; cough and pain in the head being the moft diftreffing fymptoms; it was clearly contagious, having attacked every individual in the family in fucceffion.

With the greateft refpect I am,
Gentlemen, your obedient fervant, C. E. LUCAS.

July 5, 1803.

> ART I C L E LX.

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\begin{gathered}
\text { From Mr. JUDSON, Ware. } \\
\text { JULY } 1803 .
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The epidemical catarrhal fever, or Influenza, began in this neighbourhood the beginning of March laft, towards the end of the month was on the decline ; the patients generally attacked with flight chillinefs, fucceeded by heat, pain in the head, loins and lower extremities, accompanied with difcharge at the nofe, cough, and hoarfenefs, tongue white, fome complained of ficknefs, with vomiting of bile; there were fome inftances of much uneafinefs about the cheft, with inflammatory fymptoms.

One individual being affected, thofe refident in the fame houfe were generally partakers of the complaint. The moft favourable attacks accompanied with expectoration, many inftances fo flight as not to require confinement. Elderly perfons, and hard drinkers,
drinkers, that did not expectorate freely, feldom recovered.

The complaint generally was relieved by gentle aperients, and diaphoretics, in three or four days-if they expofed themfelves to the cold, had often frefh attack of fever becoming very tedious.

Advantage derived from an antimonial emetic, if the bowels confined, rhubarb combined with calomel ; very ferw inftances bleeding was neceffary.

Blifters applied to the occiput and thorax were found ferviceable. Anodynes had little effect in quieting the cough.

The fecondary attack (if I may fo call it), accelerated pulfe, foul tongue, reflefs nights, frequently delirium, with all the fymptoms of continued fever; this occurred in a few inftances where the pneumonia, \&rc. had not been cleared on the firft attack; not more than two inftances proved fatal.

Children leaft affected by the complaint.?
Elderly perfons recovered flowly, light farinaceous and fubacid vegetable dict moft advantageous.

No epizootic complaint had prevailed to my knowledge.

Scarlatina anginofa had been very general amongtt children.

Influenza did not fhew itfelf amongt the children, either in the feminaries or workhoufe.

Ware, Herts:
A R T ICLE LXI.

From Mr. J.C. ROBINSON, Cooper's-Row, Crutched Friars. June 20, 1803.

After a fevere froft of near a month, the weather became fuddenly warm, with little rain and lefs wind; the thermometer, which had been below 20, now rofe to 50. During the froft, people were unufually healthy for the feafon: as foon as the thaw began, there appeared a diforder very like the epidemic catarrh or Influenza, recorded and defcribed by Dr.Fothergill and others in the Medical Tranfactions, in the Memoirs of the Medical Society of London, and in "L'Hiftoire de la Societé Royale de Medecine," of Paris.

The firft cafes that I faw were about the I4th February, from which time it continued to fpread till the end of March, when it feemed to be at its greateft height, and then
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gradually to decline and difappear by the end of April.

Its general character was a catarrh, the fymptoms of which were chills, rigor, head-ach, fneezing, inflammation of the eyes, forenefs of the top of the laryns and œfophagus, cough, tightnefs of the cheft, white but moift tongue, pulfe generally quick, weak, foft and languid, in fome cales, however, hard and full, pain in the loins back and limbs, great proftration of ftrength and dejection of fpirits, in fome fudden giddinefs and fainting: the bowels were generally confined; frequently, however, early vomiting and diarrhæa occurred, which appeared to prevent other iymptoms, and to fhorten the complaint.

Men and women were equally affected; children, though lefs fuhject to it, did not entirely efcape: it feemed more generally and more violently to attack thofe who were expofed to the air, efpecially in the night. In fome families it affected feveral perfons within a few hours, in others in fucceffion after an interval of lome days. From thefe facts it appeared to me to be in its nature contagious, though it was communicated more generally
and more violently by the influence of the atmofphere.

I may alfo remark, that as many doubt its being at all contagious, it could not be very powerfully and decidedly fo; and yet it fpread through this and other countries with a uniformity, violence, and rapidity, which never happens to any of the moft active contagions uninfluenced by the atmofphere. Hence I conclude, though it might be, and often was communicated by contagion, yet that the atmofphere was the general fource of the diforder.

As this complaint was not often attended with inflammation, neither did the fymptoms require bleeding, nor did the weaknefs and dejection of fpirits feem to allow it. Yet where the head was affected with violent pain, or giddinefs, cupping and leeches I employed with fafety and advantage, and in a few young perfons, where the catarrh was accompanied by evident fymptoms of pleurify, bleeding in the arm was equally ferviceable. The remedies which I ufed were few and fimple: feeing in fome of the firf cafes the good effects of early and fpontancous evacua-

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tions,
tions, I gave a few grains of calomel and antimonial powder at night, and a folution of Epfom falts in the morning, which were repeated once or twice if neceflary : afterwards faline and antimonial medicine, emulfions, opiates, and expectorants for the cough, fometimes a blifter to the head and cheft, keeping in bed two or three days; diluting drinks, and nourifining broths, formed the plan of treatment. Recovery was fometimes flow, and required the aid of bitters. Relapfes were not frequent, but in fome this diforder left a ftrong difpofition to confumption.

Upon the whole this epidemic appeared to me a fight complaint, and feldom fatal, except to the aged and infirm. One circumftance remains to be noticèd. This Influenza feems to have fuperfeded or deferred the ufual difeafes of the fyring, as the meanles and fcarlatina: this is recorded by Lorry to have been the cafc in the epidemic catarrl that prevailed in France, in 1775, but he adds that during the fummer thefe complaints appeared with more than ufual violence and fatality.

## A R T I C L E. LXII.

From MARTIN WALL, M. D. Oxford.

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\text { June io, } 1803 .
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1. A diforder has certainly prevailed in this city and the neighbourhood, far and near, affecting, with more or lefs feverity, almoft every perfon in every family, in many points refembling the vernal catarrh which prevails more or lefs every year, but in this inftance more early, and infinitely more general, and marked by fome peculiar fymptoms.

2, 3, 4. From the infidious manner in which the epidemic came on, it was almoft impoffible to fet down the precife date of its firft appearance here. I think it was about the latter end of January. It rofe to its greatef height, or moft general prevalence, about the third week in February, continued in this fate nearly to the third week in March, when it began gradually to decline.
5. It commonly invaded very fuddenly, with languor, rigor, gaping, debility, violent pain in the head, conftriction of the cheft, cough, commonly dry and harfh, fucceeded by heat, quick pulfe, white tongue, and the common feries of febrile fymptoms.

In many cafes there appeared, moft clearly, an affection of the biliary fyftem, and probably of the liver itfelf, evinced by yellownefs of the fkin, and particularly of the eyes, and a fenfe of fullnefs below the ribs on the right fide, with high-coloured urine.

It was often attended with fevere, but irregular pains in the loins, legs, and thighs, \&c. The debility induced by the firft attack, and aggravated by its continuance, was fo extraordinary, as to produce almoft the appearance of fatuity, with extreme difpiritednefs and defpondency.

Moft perfons felt a degree of forenefs in the throat; the fauces, tonfils, and velum pendulum palati were almoft always redder than ufual and fwoln. I never faw any ulcerations, or aphthæ ; but very frequent inflances of tough vifcid mucus, which it was difficult to get off by the common efforts of fpitting
and expectoration; and, when detached, the mucus was frequently tinged flightly with blood, and left the part fore.
6. The fymptoms feemed more to vary in degree than in character; and affumed a new form, whenever they were influenced by confitutional circumftances, by previous difpofition to peculiar difeafes, or by fingular idiofyncrafies.

What is here faid will apply equally to the cafes of individuals in every fingle family.
7. In general it may be faid, that it was rarely fatal, when unconnected with other difeafes.
8. Though the epidemic itfelf feldom feemed to have a fatal termination, yet the number of deaths has, in this neighbourhood, greatly exceeded that of any former years, clearly proving, that the Influenza has had no fmall fhare in producing thefe numerous inftances of fatality: but it deferves particularly to be remarked, that juft before the appearance of this complaint, during its reign, and fince its decline, fudden deaths, apoplectic, and paralytic diforders have been uncommonly frequent here.
9. I be-
9. I believe no clafs of people, nor any peculiarity of conflitution was fecure from the attack of the epidemic: but children more generally efcaped it.
10. I did not obferve, that the difference of fex made any difference in the mode of attack, or the violence of the diforder.

11, I2. The beft mode of medical treatment of this complaint, according to my obfervations, confifted in the early employment of antimonials and caiomel, in fmall and repeated dofes, fo as to att gently on the whole alimentary canal ; the patient, if the diforder was violent, being confined to his bed.Diaphoretic faline draughts were fometimes given, but I think without any pofitively good effect. Demulcent, pectoral, oily, mucilaginous, emollient mixtures and electuaries, which the cough feemed to call for, appeared to me to do harm, by fluffing up the bronchia and impeding refpiration: cuen the ufe of opiates, fo urgently folicited and apparently indicated, was at beft dubious. They did not feem effedually to allay the irritation, they increafed dyfincea, they produced confufion of the head, and coflivenels. In one fpoonfuls of fyr. pap. alb. taken by her own directions to allay the cough, very nearly produced fuffocation. In feveral other cafes of fimilar conftitutions I witneffed fimilar effects from opium. After the firft two or three days fome light tonic, (and I found none fo good as the infuf. quaffix, with fmall dofes of lac ammonix, with or without the faline mixture, according to the degree of heat, and quicknefs of pulfe, produced the moft beneficial effects, relieving the breaft, and reftoring appetite and ftrength. The cinchona did not act fo favourably, at leaft in the cafes where I tried it.

The great debility, which prevailed in every ftage of the diforder, prevented me from employing the lancet at any time. It had been fometimes ufed, before I was called in to the patient, but I never recommended the repetition of its ufe, except in a few cafes which were decidedly pneumonic.

Blifters were more frequently and fafely employed, but in general were not required, except in complicated cafes.

I3. In
13. In general I confined the patient to an abftemious diet of farinaceous vegetables; but watching the debility carefully, and ordering wine, if I faw the ftrength and vigour ftill more impaired: and in fome fuch cafes wine and a more generous diet fucceeded remarkably well.
14. Small, clofe, hot, rooms were always injurious. Many received great benefit by opening the windows, or permitting them to go into the air.
15. The febrile fymptoms gradually abated, leaving no mark of difeafe, but a great degree of laffitude and dejection for fome days, which yielded to light tonic medicines, a more generous diet, and exercife in the free air.
16. I had not occafion to remark many inftances of relapfes. Thofe which I did fee were milder than the original attack. In fome perfons the diforder feemed to remit for a few days, and then a new exacerbation (and that repeated 3 or 4 . times) took place, which may be fuppofed to have been a continuation of the firft diforder.

17, 18 ,

17, 18, 19, 20. What I have faid on the immediately preceding queftions, will convey my remarks relative to thefe four heads of your inquiry.

2I. Phthifical and pneumonic complaints, and rheumatic affections were the principal concomitant diforders, which appeared to combine with the epidemic. The former affumed very alarming appearances, and the conclufion was often fatal, or the patients ftill continue in a ftate, which is attended with little hope. The rheumatic affections were fevere, but hort, and the recovery perfect. We had alfo in this place feveral inftances of diforders in the bowels, colic with conftipation, \&cc. but thefe feemed to me to be accidental. I have before noticed, as a concurrent circumftance, that cafes of fudden death, apoplexy, and palfy, have been very frequent in this town and neighbourhood, during the laft 6 or 7 months.
22. This queftion requires more evidence than I have been able to acquire, for the formation of a decided opinion. With deference I venture to obferve, that though the complaint might fometimes feem to be contagious,
tagious, from a mode in which it attacked perfons in the fame family, who lived conftantly in the fame rooms, and flept in the fame bed; yet in general it did not appear to be propagated by contagion, but by an influence of the air, not unlike that which is at this very time fpreading its blighting effects through the woods in this neighbourhood. The preceding feafon may have predifpofed to difeafe, certain tribes of vegetables, particularly the elms, and the blighting air now acts upon thofe moft predifpofed with full influence, fo that in many places all the leaves are deftroyed, as if by actual fire. Other trees more ftrong have been lefs injured, and fome in every wood continue in perfect health and verdure. I prefume to advance this only as an illuftration.
23. I had no opportunity of making any remark, that can illuftrate this queftion.
24. It happened in fome families that three or four perfons were attacked all nearly together; others afterwards fucceffively, hardly one efcapiog, but without any regular or equal interval interpofed.
25. The
25. The fituation of the places where I have aftended patients under the Influenza is very various, the circle of medical practice round this place being very wide. The local circumftances of places muft therefore differ greatly.
26. The country in which our practice chiefly lies is expofed to every wind that blows, but Oxford particularly to the northeaft, north-weft, and fouth-weft.
27. I had not leifure to remark the progrefs of the epidemic, the hurry of bufinefs which it caufed, being beyond what was remembered by the oldeft practitioners in this neighbourhood, keeping us in perpetual exertion, night and day, for feveral weeks, efpecially in the months of February and March.
28. It may be remarked that the weather, in the laft months of the year, efpecially November, December, and the beginning of January, was particularly mild, foft, and relaxing in this kingdom. Though we had frequent accounts from the Continent of the froft, and that the Elbe, \&zc. were frozen up, the climate here continued open and mild, and the wind fouth-weft, or north-weft till about

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the roth of January, when the wind veered round to the eaft, and a fevere froft took place, and lafted, with occafional intervals, to the third week in February. Very little fnow fell, but a good deal of half congealed flect. It may be imagined that the foft warm weather of the earlier part of this period, gave that relaxation to the human frame, which formed the predifpofition for the new difeafe, when the eaft wind imported it from the Continent, and forwarded its malignant influence by the coldnefs of its blaft, operating upon the relaxed fibre - For,
29. The diforder prevailed, I have heard, in France, efpecially at Paris, and in fome of the northern departments of the Republic, and in Holland long before we experienced it here. It was prevalent in thofe countries, while the wind being hare in the wefterly points, prevented its importation, till the wind went round to the eaft and north-eaft, where it continued more or lefs for many weeks. Hence probably it was, that it prevailed more early in London than in this part of the kingdom, and in this neighbourhood more parly than in Lancafinire, the weftern, and
north-weftern parts of the kingdom. If this remark fhould be ftrengthened by other obfervations, it may feem to fhew that the progrefs of the diforder followed the direction of the wind.
30. I very well remember feveral epidemic catarrhs, but none fo perfectly as that of 1782 , as I fuffered feverely from it. There was a great analogy between that diforder, and the object of our prefent inquiry, but in fome circumftances they differed greatly. The epidemic of 1732 , prevailed in May and June, and it was more decidedly marked by fymptoms of coryza, fneezing, weaknefs of the eyes, pain in the cheft preceding the cough; but I do not remember that there was any fign of affection of the liver, or biliary fecretion. It was attended with the fame debility as the late epidemic, perhaps even more remarkably and fuddenly, in fome inftances, than this. The ufe of the lancet was then very injurious, and in general wine and cordials were not only admiffible, but neceffary. 3I. I do not recollect that any difeafe prevailed amongft quadrupeds, or domeftic birds, previoully to either of thefe epidemics.

If the remarks here offered can be of the leaft ufe to the Society, I fhall be very happy. At any rate it will be a fource of fatisfaction to me to have been able to attend to their requeft, and to fhew the refpect I entertain for them individually, and in their collective capacity.

I remain, Sir,<br>Your very obedient fervant. M. WALI.

## A R T I C L E LXVII.

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\begin{aligned}
& \text { From JAMES WOODFORD, M.D. } \\
& \text { Almsford. } \\
& \text { JUNE io. }
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Queftion 1. No other epidemical difeafe has appeared in this neighbourhood, during the prefent fpring; and exclufive of the Influenza, there have been fewer difeafes than common.

2 and 3. The firft well marked cafes falling under my obfervation happened in the beginning of March, and it attained its height the beginning of April.
4. It fill continues in a fporadic form; and with as great (or greater) feverity than on its firft appearance.
5. The difeafe commenced with rigors, often fevere, and lafting feveral hours, or with chillinefs, followed by feverifh heat, and accompanied with vertigo, head-ach, pains in the limbs, but efpecially in the back and loins, and at different times in almoft all parts of the

Mm 3 cheft,
chef, with an oppreflion and fenfe of fricture about the præcordia, great and fudden general debility, with anxiety, refleffinefs, and depreffion of fpirits: a frequent dry cough with fneezing, and a thin acrid defluxion from the nofe, a watery difcharge from the eyes, which were often red and inflamed. The tongue white in the middle, or with a brownifh fur, but moift: at the edges moift and clean, thirft moderate. The functions of the alimentary canal generally difordered by ficknefs, vomiting, or diarrhœa. The pulfe was from 80 to 100 , foft and rather full, but feldom ftrong and hard. The urine was generally high coloured, with a lateritious fediment ; fcarcely any fleep during the firlt days of the difeafe. The pains in the cheft, or fides, were often very acute and violent, much increafed on coughing or on any motion of the body; but they feldom continued long fixed in one part, and though increafed on making a full infpiration, were certainly not attended with that great and permanent dyfpnœa, fo ufually attending genuine pneumonia. A total lofs of appetite commonly occurred with a lofs of diflinction of tafe.
tafte. I believe there are no fymptoms more frictly pathognomonic or characteriftic of the Influenza, than fudden proftration of ftrength, and depreffion of fpirits. Thefe were always evident, even when the other phænomena were very flight.
6. The difeafe varied extremely in individuals of different ages, and conftitutions, but were pretty uniformly the fame in thofe of fimilar ages and conftitutions.
7. I have feen no fatal cafe of Influenza, when unconnected with other difeafes.
9. The middle aged, and thofe between 50 and 60 , of robuft and plethoric habits, accuftomed to vinous or firituous potation, or to the inclemencies of the atmofphere, fuffered moft feverely. Young children for the moft part had a mild difeafe.

II and 12. The difeafe was fuccefsfully treated by confinement to the houle or to bed, by the liberal ufe of diluting cooling liquids, emetics, purgatives, and diaphoretics. In cafes attended with pulmonic congeftion, or inflammation, an early and moderate v. f. i. e. $\xi^{x}$ or $\xi \mathrm{xj}$. with repeated blifters, and antimonials at the ufual intervals, never failed
to afford great and fpeedy relief. In every inftance the bleeding was borne eafily, the blood appeared fizy and often prefented the cup-like appearance. In fome cafes bleeding was repeated a fecond and a third time with evident relief: this was done, even in a man aged 75 , but who was of a full plethoric habit. I have reafon however, to think, that, notwithftanding the above effects of bleeding, they might often have been fuperfeded by repeated bliftering. Emetics were frequently indicated from fpontancous vomiting, and they often had the beft effects in rendering all the fymptoms milder ; fo had purgatives, which were likewife often required for coftivenefs, 2 or 3 grains of calomel, with 6 or 8 of rhubarb, and followed by inf. fenn. c. natri tartariz. $z^{i i}$. val $j^{\text {iij. commonly }}$ anfwered thefe intentions.

A warm general and moderate perfpiration, at the commencement of the difeafe relicved, all the fymptoms, efpecially the pains, dyfpnœa, and oppreffion about the cheft: in fome, antimonials produced thefe effects : in others, the faline, neutral falts, and particularly the aq. ammon. acetat. - Profufe fweets funk
funk the patient, and aggravated all the fymptoms. Opiates in any form were hardly admiffible before the fubduction, or a great abatement of the inflammatory fymptoms : then, united with light tonics, and expectorants, they abated the cough, procured reft, and reftored ftrength. The inf. gentian, compofit. or inf, quaff. with muriatic acid, anfwered with moft.

Broths made by boiling animal and vegetable fubftances in water, were particularly indicated at this period; as alfo the allowance of two or three glaffes of wine, a-day.
15. It generally terminated by a free and copious expectoration of vifcid phlegm, and yellowifh mucus; at leaft when fuch an expectoration happened, the difeafe foon difappeared.
18. Convalefcents recovered very flowly, complaining for fome time of langour and debility of body, with lownefs of. fpirits, and an impaired appetitc.

By gentle exercife in the open air, a light nutritious diet, with tonics, and a moderate ufe of wine, perfect health was at length reftored.
21. When
21. When the Influenza attacked fubjectg apparently predifpofed to phthifis, it never failed to increafe and call into action the latent feeds of that difeafe; and in feveral inftances to induce fpeedily a confirmed fate of it, which quickly proved fatal. Of this I faw one cafe a few days fince. It was a female aged twenty-three, and born of confumptive parents; but who at the time the was feized with Influenza three months ago, was free from any evident phthifical fymptom.
22. This malady attacks fo many at the fame time, and is fo widely diffufed that I think we muft afcribe its fource to the fate of the atmofphere.
24. In fome familics I have feen feveral attacked nearly or quite at the fame time : in others again in fucceffion. I have alfo feen inftances of a hufband, or a wife only being ill of it.
26. The places in which I have made my obfervations are expofed chiefly to the fouthweft, weft, and north-weft winds.

## A R T I C L E LXVII.

> From Mr. BUSH, Frome. Sept. $10,1803$.

The Influenza appeared in this neighbourhood about the beginning of March, it attacked many perfons during that and the fucceeding month, and till about the middle of May, when the number affected was lefs, and the fymptoms appeared milder, yet feveral perfons were ill of the difeafe in its genuine form in July.

The diftemper was ufhered in by confiderable langour, followed by flight fhiverings, accompanied with heavinefs and pain in the forehead, fometimes the pain was confined to one fide of the head, frequently with rednefs of the tunica conjunctiva, and a difcharge of lymph from the eyes. The fauces were affected with forenefs and rednefs, but in a few inftances only, fo as to be a diftreffing fymptom.
fymptom. The pulle was confiderably harder than natural, not full, and generally between 90 and 100 beats in a minute, but more accelerated towards night. - The tongue was covered with a dry whitifh fur in the middle, and with red moift papillæ on the edge ; in a few inflances where the fymptoms were fevere, the tongue exhibited a browner hue in the middle, but the florid ftudded edge was pretty uniform. Pain and fitches about the mufcles of the diaphragm, and hard cough came on a few hours after the acceffion of febrile fymptoms; the urine was high coloured and without fediment; the cough continued to increafe, and on the third or fourth day a very copious exputition of a whitifh mucopuriform matter came on, which did not afford that relief experienced by free expectoration, in common catarrh. The pain about the cheft continued to increafe, and was only fubdued by the application of blifters, and leeches, and in many cafes both were neceffary.

Diaphorefis was eafily excited, but not attended with any immediate relief. The dileafe ran on a fortnight, or even a month,
when the irritation of the cheft, and febrile fymptoms went off, the exputitia diminifhed, the urine depofited a fmall quantity of whitin fediment, and the patient began to experience convalefcence, but the advances towards health were commonly very flow.

In many inftances the firft fymptoms the patient complained of were laffitude and dyfpepfia, which was defcribed by the fick as want of appetite, attended with rambling and uneafy fenfations about the præcordia, and a twifting of the bowels. If cathartics were given at this period of difeafe, it was arrefted in moft inftances, or rendered fo mild as to require no other remedy than a repetition of the laxative. I faw the diftemper feveral times combined with acute rheumatifm.Emetics were ufeful, if given before the inflammatory fymptoms of the cheft came on; if they had made their appearance, mild laxatives, and an aqueous regimen were proper ; acetated water of ammonia, fquills, and opium, were varioufly combined, and feemed to afford occafional relief. General bleeding was not ufed in any inftance. Opium given in confiderable quantity alone increafed the tightnefs
nefs of the cheft, and aggravated the pulmonic affection; but the fame effect did not follow the ufe of it when combined with fquill, ipecacuanha, or antimony. Perfons of all temperaments, ages, and claffes, as well as of both fexes were indifcriminately affected.

Relapfes were frequent and differed little from the original attack. It frequently happened that feveral individuals of the fame family were ill of the difeafe at the fame time, but it more frequently occurred at intervals of ten days, or more. I cannot help attaching the idea of contagion to this diftemper.

The fatality of this complaint was but trifling, I loft only one patient, (a man aged 63 ,) out of nearly 200 .

A R T I C L E LXIX.<br>From Mr. J. C. MELHUISH, Tivertoa.<br>August 18, 1803.

The Influenza firft appeared in two of my patients, one of which refrded in this town, and the other about a mile fouth-eaft of Tiverton, on the 23 day of March laft. After having been very general about a month, it fubfided almoft immediately after the change of the wind from the eart, (in which quarter: it had almoft conftantly been from the time above-mentioned, to the weft and fouth, and the fubfequent rain, without recurring in any fingle inftance.-It appeared to me as uniformly endemic, and in many cales epidemic. I recollect the former Influenza, (fome years fince, ) which feemed a compound difeafe of catarrh, and peripneumony, the firft rather predominating; in the late difeafe, (in my opi, nion) a compound difeafe alfo, of catarrh, pefipneumonia notha, and fometimes inflammafory fore throat, the fecond was moft predomio
dominant. An intermittent tendency, was alfo very obfervable in fome inflances, but it never continued fo as to require the ufe of the bark.

I found the pneumonic affection in this difeafe infinitely lefs dangerous than when the peripneumonia notha is lefs frequent-for though three inftances in this neighbourhood occurred, where two in each houfe died, yet thefe were old perfons, or of very bad ftamina, and in a bad fate to meet the difeafe.

Upon the whole, 1 found it much lefs dangerous than from the feverity of the fymptoms I had at firft apprehended.

I had only two cafes in whic! I bled, in one of which the patient was accuftomed to bleeding every fping, the other highly plethoric, but each recovered.

I always treated this difeafe exactly as the peripneumonia notha, except that opium, (at night,) which I have fo often given with the greateft fuccefs in this difeafe, unfortunately had the contrary effict in the Influenza.

Previous to, or during the prevalence of the difeafe, I did not notice any epizootic complaint.

## ARTICLE LXX.

From Dr. Kinglake, of Taunton.

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\text { July 4, } 1803 .
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A catarrhal affection of unufual violence, has raged epidemically in this town, and neighbourhood. It occurred to me to fee, and direct a well marked cafe of this influenzal malady, fo early as the fifteenth of laft January. It did not become remarkably prevalent until the latter end of February, and during the month of March. Its increafing frequency, and rapid propagation, then gave it its definite character and denomination.

It was moft rife in the months of April, and May, when it feemed to have attained its acme, both with regard to violence, and extenfion. No cafe of the complaint has fallen under my profeffional care fince the fourth inftant, yet the diforder, though apparently verging on extermination, is not yet quite extinct. Even almoft to the prefent day, it

VoL. VI. Nn fhews
fhews itfelf very characteriftically, but fa rarely, as to have loft its epidemic title. Its characteriftic Symptoms.
Its moft prevailing defcription of fymptoms was a fenfe of diminifhed temperature, denoted by tranfient chillinefs, occafionally proceeding the length of violent and durable fhivering, fucceeded by febrile heat, cuticular drynefs, hard, rapid, moderately full pulfe, inflammatory determination to the mucus membrane, invefting the fauces, trachea, bronchial tubes, and noftrils, inducing ftrictured breathing, pain in one, or both fides, fometimes directly under the fternum, acrofs the cheft, or more particularly in the region of the heart, painful cough, mucus expectoration, difcoloured and dry tongue, often accompanied with apthous erofions, craving thirf, high-coloured urine, and not unfrequently a total lofs of fmell and tafte. The more urgent form of fymptoms was a general aggravation of the preceding, with the addition of naufea, ancurexia, bilious vomiting, and purging, icteric difcoloration of the fkin, laborious breathing, bloody expectoration, epiftaxis, muttering delirium, and extreme depreffion of mental energy.

The

The number and external character of thefe fymptoms varied confiderably in different individuals; but in no inftance in my obfervation, was the catarrhal bafis wanting to diftinguifh the peculiar nature of the difeafe : nor did an undeviating uniformity mark its courfe in members of the fame family, though of nearly equal ages, and apparently, of fimilar conftitutions. Infcrutable diffimilarity of temperament countervailed any affimilating influence which confanguinity, equality of age, and conftitutional refemblance might exert, and appeared in correfponding diverfity of features. It feems to have made a deeper, and more untractable impreffion on the male, than the female conflitution.

It has not in my opinion been necerfarily fatal in any inflance, when unconnecked with other difeafes, and appropriately treated.

My experience happily difables me from making any eftimate of its proportionate fatality, having in a confiderable number of patients feen but one only who died, and in that folitary inftance, diffolution was too

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nearly, and irrefifibly approaching at my firit vifit, to afford any cbance of refcue.

No age, clafs, or conftitution, was exempr from its attack; but it appeared to me to fall more conftantly on the adult, than an earlier age, and moft violently, on the old, the afthmatic, and the irricable temperament.

Females feemed to be more obnoxious to the difeafe, than males.

## Its Mode of Cure.

The moft fuecefsful treatment was a clofe adherence to what is termed the antiphlogiftic plan, with refpect to diminifhed temperature, free ventilation, and copious dilution, with cold, flender liquids, in fmall portions, at fhort intervals. When the difeafe was feafunably checked by cooling management, no indication occurred for the employ of bleeding, whether general or local, emetics, purgatives, or opiates.

Sudorifics and blifters, under circumftances of fevere inflammatory pain, and determination to the lungs, proved highly falutary, and, in general, much fecurity from relapfe was afforded, either by the renewed, or protracted irritation of blifters.

The

The moft appropriate diet was the lighteft, and leaft fimulant. Previoufly to the commencement of convalefcence, the moft fuitable fuftenance was barley water, oat gruel, chicken broth, beef-tea, and at fartheft, a llightly boiled eggr thefe were advantageoufly taken in fmall quantities, at fhort diftances; they fufficiently refifted the iacreafe of direct debility, without hazarding its indirect production by undue excitement.

A cold temperature was highly gratifying and beneficial. From forty to forty-five of Fahrenheit's thermometer would bave been defirable; but the variable heat of the atmofphere precluded the advantage of this uniform coolnefs. The thermometer often ftood at about fifty in expofed fituations; but in the apartments of the fick, no injunction or remonfrance could prevent its frequently afcending to fixty and upwards, by fhutting the windows and doors, or even kindling fire in the bed-room: whenever the latter indifcretion was committed, the aggravated fymptoms of the patients foon became fufficiently evident to induce an anxious wifh to return to

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the compofing influence of a cooler tempera ture.

The difeafe ufually terminated in a gradual abatement of every febrile fymptom, particularly the removal of painful and oppreffive determination to the cheft, an equal diftribution of the circulating fluids, feady uniformity of fenfual temperature, deepened cough, and copious expectoration of vifcid mucus. The recovery of fmell and tafte, efpecially the latter, were the laft, and often very late, in the arrear of convalefcence.

Relapfes were very frequent, even in defiance of fuitable precaution.

The fymptoms of relapfe were fimilar to thofe of the original attack, with the difference of being in general much lefs fevere.

The progrefs of convalefcence was, in moft inftances extremely flow, and tedious. It was ufually accompanied with an infuperably vexatious cough, and occafionally with abundant expecioration, and nafal difcharge of heavy, yellow, offenfive mucus. Under thefe circumftances, pulmonary confumption was formidably threatened, and in fome in-

Atances, the incipient ftage of that deftructive malady, appears to have been actually entailed.

The treatment which proved beft adapted to obviate ferious confequences, and to infure a falutary iffue, confifted in guardedly avoiding an abrupt return to a full ftimulant diet, unduly heated apartments, and too much bodily exertion. A fmall quantity of nutriment, at fhort intervals, abftinence from fermented liquors, tranquillity, and the uniform fupport of a derivant degree of irritation on the cheft, either by vefication or rubefacience, powerfully conduce to the moft favourable termination.

Stomachic and tonic medicines were not often either neceffary or admiffible, as the return of appetite and vafcular tone was, in general, foremof in convalefcence, and the ftimulant effects of agents employed in thofe intentions, were contra-indicated by the morbid remains of pulmonic irritation.

Its Origin.
The influenzal epidemic did not in my obfervation either diftinctly induce, or mingle its character with other diforders, except the Nn 4 modifica-
modification which it received from an aftho matic, tubercular, or any other difeafed fate of the lungs; and in this complicated affection, could be recognized no more than additional violence and obftinacy, in the fuperadded diftemper. On fome occafions, indeed, an icteric hue tinged the flkin, and the various fecreted fluids; but this appeared to arife from a fubordinate derangement of the hepatic function, and did not effentially interfere with the fpecific influence of the reigning malady.

The contagious power of the difeafe appeared to me to be unequivocally decifive, its propagation being, in moft inflances, diftinctly traceable by perfonal intercourfe.

In populous affociations, where perfonal intercourfe was unremittedly continued, the difeafe became general at the fame time; or at leaft occurred in rapid fucceffion.

This fimultaneous prevalence of the difeafe was ftrikingly exemplified in large families; indeed fo univerfal was its reign in fome inftances, as to make the private dwelling affume the dreary appearance of a temporary hofpital.

My obfervations have been chiefly confined to an extenfive vale, rather of a fandy foil, moderately wooded, plentifully watered, and well drained ; expofed to the eaft, and weft winds, and fheltered from thofe of the north, and fouth.

The diforder occurred in a defultory manner in this neighbourhood, prior to either its metropolitan or provincial prevalence having eftablihed its epidemic character. From its firft appearance in this town and vicinity, it indeed continued to fpread; but the courfe of its perfonal propagation was not fo evident, as when its increafing difufion had multiplied the fources and channels of its contagious influence.

Infances abound of whole families becoming infected in confequence of a diftempered individual, either inmating with, or tranfiently vifiting them.

For many months previoufly to this epidemic, the very variable courfe of atmofpheric temperature was notorious to common obfervation. The unfteadinefs would indeed at times run through a vaft range of heat. An interval of twenty-four hours would often prefent un-
feafonable extremes, from the freezing point to fifty of Fahrenheit's thermometer. The hurfful violence which thefe contrafted ftates neceffarily inflicted on the fentient and irritative powers of the fyftem, was exafperated by the rapidity of tranfition from the one to the other.

This very variable temperature affords a caufe fully commenfurate to the effects which have arifen in the motive powers of health, and which have been characterifed in the epidemic catarrh of the feafon. Irregular temperature foon induces inequality in the diftribution of the circulating fluids, which operating as a morbid excitement on the fyftem, produces the febrile fenfations of diftempered cold and heat, of relative deficiency and plenitude ; with fuch vifceral determination as the joint influence of affociative and organic fufceptibility may favour,

The motive laws of the animal ceconomy have fo intimate a connection between the cuticular furface, and the mucus membrane invefling the bronchial tubes, trachea, \&vc. as to induce the moft prompt participation in each others affection. Hence the difeafed im-* preffion
preffion made on the fkin in irregular tems perature, is but too apt to be precipitated, together with the confequent commotion of the fyftem, on the lungs, or rather its aerial membrane. The local eftablifhment, the difeafe here obtains, wiil foon fpecifically vitiate vital action, and caufe it to evolve a halitus, or motive power, capable of imprefling its own peculiar nature, in fuitable circumitances, of organic fufceptibility. In this mode catarrhal affection ufually originates, which becomes more or lefs extenfive in proportion as the feverity of the difeafe generates, concentrates, and diffufes its contagious power.

It is difficult to conceive that any atmofpheric fource of contagion can be fufficiently extenfive to give effect to an epidemic difeafe. Before this could happen, the confituent principles of refpirable air muft be decompofed, which would probably put an infant period to every defcription of animal life. Temperature is the only condition of the atmofphere capable of general influence. Its extraneous matter, however noxious, is infulated, and can aci but partially. Apimal action is neceffary to endue it with fpecific,
or contagious power, and perfonal intercourfe is requilite to its propagation. The hiftory of the piague, and every variety of epidemic difeafe fufficiently evinces, that in whatever phyfical circumftances thefe diftempers individually originate, they owe their diffemination to the impreffive power of perfonal contagion.

The direction of the wind does not appear to have much influenced the extenfion of the difeafe. The contagious power has required the application of its undiminifhed force to become efficient. When reduced by acrial dilution and diffufion, it has been too deficient in requifite energy to excite the epidemic affection. No fatisfactory proof has occurred in my obfervation of the atmofphere having been the general vehicle of contagion, while its perfonal diftribution has been notorioufly obvious.

My recollection of the Influenza which raged in the year 1782 , warrants me in faying that it bore a very near refemblance to the late epidemic.

No epizootic complaint was remarkably prevalent in this neighbourhood previoufly to the occurrence of the late Influenza.

The ample experience afforded by the frequent recurrence of epidemic catarrh, has eftablifhed the important fact, that the difeafe has been invariably of an inflammatory nature, and that it will always be appropriately, and probably fuccefffully, combated by cooling, and anti-ftimulant treatment.

An effectual prevention of this malady is lefs likely to be obsained, than a fecure repreffion of its violence, by an early inflitution of the fuitable means of cure.

Whether fumigation with acids, or any other fubftances, can deftrcy catarrhal contagion by inducing chemical changes in the arrangement of the morbid power, is yet too doubtfut to be implicitly relied on, and until the queftion be decided, its adoption fhould neither fuperfede the employ of the certain prevention, by avoiding perfonal intercourfe with the affected when practicable, nor the alleviating utility of an abfemious and antiinflammant regimen, both before and after the attack of the difeafe.

Your queftions are well adapted to obtain the moft ufful fcientific and practical intelligence on the nature and cure of the late, as
$55^{3}$ MEMOIRS OF THR
well as other kindred epidemic diftempers. Much diverfity of opinion will probably be difcovered on this interenting inquiry, particularly on perfonal and aerial contagion, yet it may be prefumed there will be leading agreement and relemblance, fufficient to reft the caule of truth on the clear induction of concursent factus
ARTICLE LXXY.

From William woolcombe, M. D.

> Plymouth.

Query I, The epidemic catarrh, ufually called Influenza.
2. On the 2d of March, in a family confifting of eight perfons, all of whom had the difeafe fucceffively in the fpace of a few days. The firft cafe at the Public Difpenfary did not cccur until the 18 th of the fame month, by which time the difeafe was very generally prevalent in the town.
3. During the laft ten days of March.
4. The laft inftance of attack, which I met with, occurred on the 12 th of May, but very few cales had occurred during the preceding part of this month.
5. Superadded to the more common febrile and catarrhal fymptoms, there fubfifted an extreme degree of debility and languor, appafently very difproportionate to the other fymp-
fymptoms; a confiderable forenefs of the mufcles, increafed by flight preffure, was alfo a frequent and troublefone fymptom.
6. The fymptoms saried confiderably in number and degree in different individuals. No prevailing fimilarity of fymptoms appeared to me to fubfift in the relations flated in this query.

7, 8. The very few inftances of death, which I could attribute to it, occurred in perfons of advanced age, previounly liable to pulmonary affection, particularly of the afthmatic kind.

Of forty patients admitted at the Difpenfary one died.
9. Children appeared to be lefs obnoxious to the difeafe than adults, and when feized, to have the complaint more favourably.

11, 12. The effects of bleeding, general or local, came not within my obfervation. Mild emetics were of fervice at the commencement of the complaint, and occafionally during its progrefs; but from the inordinate and indifcriminate ufe of James's powder, I have reafon to think, in many inftances, that the leading fymptoms of the difeafe were aggra-
vated, and its duration protracted. Laxatives, fudorifics, anodynes, were occafionally ufeful, but thefe remedies feemed to me to have lefs effect in relieving the particular fymptoms againft which they were directed, than might have been expected either from the degree of thofe fymptoms, or from the ufual effects of fuch remedies, employed on account of analogous fymptoms in other difeafes.
13. In mild cafes little variation of diet feemed neceffary, and in thofe of a feverer kind, there generally fubfifted a very ftrong objection to fuftenance of every fort.
18. Recovery was very far from rapid.
19. In thofe perfons in whom the fymptoms of the difeafe had occurred only in a flight degree, confiderable laffitude and languor long continued; but where the fymptoms had at firt been more fevere, the confequent debility and languor were often protracted to a confiderable fpace of time.

2I. Pneumonic inflammation was the diforder, which appeared moft frequently in combination, and from which, almoft exclufively, was danger to be apprehended, with the exceptions ftated $7,8$.
Vol. VI.
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22. The evidence detailed in the hiftories of former epidemics of this kind appears to me to preponderate in favour of the opinion, which attributes the propagation of this diforder to contagion. Nothing has occurred in the courfe of my own obfervation on the progrefs of the late epidemic to induce me to abandon this opinion, which has received confirmation from the apparent introduction and progrefs of the difeafe in particular families. In the family mentioned in the anfwer to query 2 , the difeafe appeared many days before it was prevalent, or, to the beft of my information, known in this town; and proceeded to attack in fucceffion every individual of the family.-It is difficult to conceive that every one of eight perfons compofing one family, fhould be more difpofed than the reft of his neighbours, to be acted upon by an influence, to which all were in common expofed; at the fame time, I confefs myfelf unable to fhow by what means the fuppofed contagion was introduced into this family, in the mafter of which its influence was firft apparent.
24. Gene.
24. Generally perfons in the fame houfe were affected in fhort fucceffion to each other ; yet to this ftrong exceptions certainly occurred, fometimes feveral being affected at the fame time, and fometimes certain individuals efcaping the diforder when moft prevalent in the houfe, and yet having it at a fubfequent period.
25. In the town and neighbourhood of Plymouth.
27. The difeafe I am inclined to believe prevailed in the populous towns of Plymouth and Dock, before it became general in the country around, or in the villages, in the vicinity; but on this point I have not fufficient information to fpeak with confidence.
29. The progrefs of the difeafe was weftward ; but its appearance, in particular places, did not correfpond uniformly to this direction. The wind, fome time previoufly to its appearance, and during its prevalence, blew very, generally from the eaft.

During the prevalence of this epidemic, I obferved, with fome furprife, that the complaints of confumptive patients, in the vari-

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564 MEMOIRS OF THE
ous flages of phthifis were not apparently affected by it, in the flighteft degree. Nor has phthifis been more frequent fince. I have met with one inftance only of this difeafe ori* ginating in the Influenza.

## A R TIC L E LXXXII:

From Mr. HARPER, of Gopport.
2. About the Ioth of March.
4. Laft patient about the 30th of March.
6. Did not vary in the fame family, equal age, fimilar conftitutions, and different fexes, but when combined with peculiarity of confitution.
7. No,

1. No obfervable difference.
II. No other medicines neceffary than mild diaphoretics. None given, but mift. falin. with fpt . $\mathfrak{x}$ ther nitrof.
2. No occafion to bleed, either general or local, to give emetics, purgatives, opiates, or ufe blifters.
3. Moderately warm.
4. Sometimes a relapfe-one fo late as April II.
5. Similar fymptoms, yielding to the fame mild remedies.
6. No-quite the reverfe 7 Several at this time
7. Debilitated
8. None neceffary (June) not recovered from its effects.

2I. The difeafes at this time fatal, were peripneumonia notha, and phthifis.

Several cafes of catarrh previous, during, and after.

The peripneumonia more fevere than ufual, perhaps, aggravated by the epidemic ; but the weather at the fame time peculiarly unfavourable.
22. Whole families affected.
23. In a fchool of about So, only four applied for relief.
24. In fucceflion, at a few days interval.
27. Places in the neighbourhood before and after, much more feverely.
28. From the 12 th of February, (except the 20th north) to ift March, wind weft to fouth-weit.

From If March to 14th north-weft to north-eaft and eaft, 14 th and 15 th weft, 16 th eaft, 17 th to 2 ift fouth-wef, and weft, then eafterly to 25 th. Afterwards variable.
29. Not followed the direction of the wind, but affected by the northerly winds.
31. Have not heard of any difeafe in any animals, fince September and October, when a difeale in cats.

State of the Thermometer, Barometer, Wind and Weather at Gofport, in the County of Hants, taken at Ten o'Clock in the Morning of each Day 1803.

| FERIUARY. |  |  |  |
| :---: | :---: | :---: | :---: |
| Day | Ther. | B rom. | Wind and Weather. |
| 1 | 38 | 30,35 | iv. Tolerably fine. |
| 2 | 40 | 30, ${ }^{3}$ | N. W. Cloudy, afternoon fine. |
| 3 | 37 | 29,6 | N.W. Fine at times, but fome wind. |
| 4 | 32 | 30,18 | N. E. Very fine. |
| 5 | 32 | 30, 1 | E. Very fine, fome foz in the morning. |
| 6 | 37 | 29,5 | 5 W . Some litte fnow in the night, rather inclined to rain with wirid. Afte noon wind noth. |
| 7 | 35 | 29,54 | N. Some wind, a little fnow in the night and cvening. |
| 8 | 32 | 30, | N. E. Cloudy, fnow early in the morning. |
| 9 | 35 | 30,2 | N. W. Fine. |
| 10 | 36 | 30,47 | N. E. Very fine. |
| 11 | $3^{2}$ | 30,53 | N. E. Very finer |
| 12 | 33 | 30,5 | N. E. Foggy at nine, A. M. Thermometer 28. |
| 13 | 44 | 30,04 | W. Rainy. |
| 14 | 40 | 29,8? | 5 W. Some froft in the night. Some rain early in the morning. |
| 15 | 44 | 29,55 | W. Some wind, cloudy. Some rain. |
| 16 | 44 | 29,4 8 | W. Some wind, fine at times. |
| 17 | 44 | 29,66 | W. Windy and cloudy, rain at night. |
| 18 | 44 | 29,6 | W. tolerably fine and calm. |
| 19 | 44 | 2.9,77 | SW. Afterwards fouth weft, very fine, then rain and windy. |
| 20 | 45 | 29:5 | N. Cloudy. |
| 21 | 40 | 29,94 | W. Rainy. |
| 22 | 40 | 30,14 | W. Very finc. |
| 23 | 45 | :0,3 | S. W. Very fine. . ${ }^{\text {S. }}$, Abrent from |
| 24 | 47 | 29,8 | S. W W Abrent from |
| 25 | 45 | 30,3 | W. S. W. home, taken |
| 26 | 49 | 30,4 | S. S. W. Cloudy until noon, then fine. by my affift- |
| 27 | 48 | 30,3 | W. Fine, but high wind. ant. |
| 28 | 46 | 30,2 | S. W. |


| Comparative Statement of Burials in the Parim of Alverfoke and Borough |
| :--- |
| of Gofport from 1800 to 1803. |

$\left.\begin{array}{l}\text { Burial Places common to both, } \\
\text { At the Parifh Church } \\
\text { At the Town Chapel }\end{array}\right\}$ February $\left\{\begin{array}{ccccc}1800 * & 1801 * & 1802 . & 1803 . \\
29 & 14 & 9 & 6 \\
\text { Exclufive of Naval and Military } \\
\begin{array}{l}\text { Hofpitals. }\end{array} & \text { Total } & 42 & 19 & 14 \\
\hline\end{array}\right.$

* N.B. As the population of the town, \&c. increafes in war, and diminithes in peace, it may be neceffary to bear in mind that in 1800 and part of 1801 , we were in a state of war.

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## MEMOIRS OF THE

| MARCH. |  |  |  |
| :---: | :---: | :---: | :---: |
| Day. | Ther. | Barom | Wind and Weather. |
| 1 | 51 | 30,1 | N.W. 3 Abrent fr |
| 2 | 48 | 30, | N. W. $\}$ Abrent from home. |
| 3 | 37 | 29,9 | s N. W. Sometimes eaft, wind, and fome fhowers of fnow and neet. |
| 4 | 37 | 29,9 | N. E. Tolerably fine, but windy. |
| 5 | 40 | 30, | N. N. W. Very fine. |
| 6 | 44 | 30,07 | N. N. E. Fine. |
| 7 | 37 | 30,13 | N. E. Windy and cloudy. |
| 8 | 40 | 30,1 | \{ N. E. Windy and cloudy, then finer and lefs wind, much rain at night. |
| 9 | 35 | 30,03 | N, E. Cloudy. |
| 10 | 34 | ;0,04 | N. E. Cloudy. |
| 11 | 37 | 30,24 | N. windy, fometimes fine, fome litele fnow. |
| 12 | 35 | 30,46 | N. Fine and clear. |
| 13 | 35 | 30,46 | N. W. Very fine. |
| 14 | 47 | 30,37 | W. Fine at times, mild, rpots of clouds. |
| 15 | 45 | 29,7 | W. Cloudy and rainy. |
| 16 | 43 | 29,93 | N. Very fine, |
| 17 | 43 | 29,93 | S. W. Cloudy. |
| 18 | -6 | 3 3, 14 | S. W. Inclined to rain. |
| 19 | 47 | 30,26 | W. Small rain, fine afternoon. |
| 20 | $5{ }^{\circ}$ | 30,16 | W. Very fine. |
| 22 | 53 53 | 30,24 30,14 | E. Very fine. |
| 23 | 55 | 30, 16 | E. Very fine. |
| 24 | 57 | 30,26 | E. Cloudy, then fine. |
| 25 | ¢5 | 30,12 | E. Cloudy. |
| 26 | 57 | 30,06 | W. Afterward variable, very fine. |
| 27 | to | $3^{c, 2}$ | S. E. Afterward variable, veiy fine. |
| 28 | 54 | 30, 15 | W. Variable, very fine. |
| 29 | 56 | 30,05 | E. Variable, very fine. |
| 30 | 56 | $30, \mathrm{Yr}$ | W. Variable, very fine. |
| 31 | 54 | $3^{\circ} \mathrm{O}, 2$ | Wind variable, very fine, fog in the evening. |


| rials Flaces common to both, |  | 180 | 1801 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| At the Patifh Church | S | 16 | 13 | 12 | 15 |
| At the Town Chapel $\}$ |  | 44 | 32 | 18 | 19 |
| Exclurive of Naval and Military |  |  |  | - |  |
| Hofpitals . . . $\}$ | Total | 60 | 45 | 30 | 34 |


| A! 11. |  |  |  |
| :---: | :---: | :---: | :---: |
| Day. | Tle: : | Barom. | Wind alid Wcaller. |
| 1 | 53 | 30,07 | E. Foggy in the morning, very fine. |
| 2 | 53 | 29,73 | S. Cloudy. |
| 3 | 53 | 29,6 | $\left\{\begin{array}{l}\text { Variable from S. to W. then to eafterly, fome rain } \\ \text { in the night, then finc. }\end{array}\right.$ |
| 4 | 50 | 29,8 | 5 S. Some rain in the night, very fine, a little rain in the evening. |
| 5 | 52 | 30,:2 | S. W. Windy, but fine. |
| 6 | 56 | 30,2 | S. E. Very fine. |
| 7 | 54 | 29,72 | E. Very five, rain in the evening. |
| 8 | 53 | 29,72 | S. E. Rainy, fine afterwards. |
| 9 | 51 | 29,92 | 5S. E. Rain in the morning, cloudy, fome rain in the afternoon and night. |
| 10 | 55 | 30,2 | W. Cloudy morning, then fine. |
| 13 | 59 | 30,44 | N. E. Very fine. |
| ${ }_{12}$ | 55 | 30,5 | N.E. Very fine, fome wind. |
| 13 | 57 | 30,5 | E. Very fine. |
| 14 | 62 | 30,47 | S. E. Very fine. |
| 15 | 62 | 3C, 34 | E. Very fine. |
| 16 | 57 | 30,07 | E. Wind changed to W. in the afternoon, very fine. |
| 17 | 55 | 30, | W. Cloudy, his h wind at night. |
| 18 | 48 | 30, | $\left\{\begin{array}{l}\text { W. Rainy and windy at times, fome hail in the } \\ \text { morning. }\end{array}\right.$ |
| 19 | 55 | 29,75 | SW. Storm of wind in the night, windy and cloudy, with Muwers. |
| 20 | 47 | 29,74 | N. High wind and cloudy, with Mowers at times. |
| 21 | 53 | 20,24 | S. W. High wind and rain at times. |
| 22 | 52 | $29-2$ | W. Fine morning, then cloudy, much wind. |
| 23 | 51 | 29,63 | SW. Squally at tumes, fome hail, wind, and mowers at times. |
| 24 | 44 | 29,8 | W. Fine morning, then fhowery, not much wind. |
| 25 | 55 | 30,04 | W. Very fine morning, then cloudy. |
| 26 | 48 | $30,04$ | W. Very fine. |
| 27 | 47 | 29,7 | $\left\{\begin{array}{l}\text { N. W. Fint, but cloudy N. E. afterward \&qualls of } \\ \text { wind and rain, until the evening, wind S. }\end{array}\right.$ |
| 28 | 46 | 30, | N. Clout: and windy, afterward fine at times. |
| 29 | $5{ }^{5}$ | 30,15 | N. Cloudy, but no wind. |
| 30 | 54 | 30.03 | W. Very fine. |

Comparative Statement of Burials in the Parih of Alverfoke and Borough of Gofport from 1800 to $\mathbf{x}^{\circ} \mathrm{O}_{3}$.

| Burial Places common to both, |  | 1800*. 180ı |  | 1802. 1803 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| At the Parim Church, | April | 15 | 14 | 10 | 18 |
| At the Town Chapel, |  | 34 | 37 | 11 | 12 |
| Exclufive of Naval and Military |  | - | - | - | - |
| Hofpitals | Total | 49 | 51 | 25 | 30 |



## ARTICLE LXXIII.

From Mr. ROWE, Portea:

$$
\text { July } 1803 .
$$

## CASE I.

In the evening of March 18 th, was defired to attend a female about 20 years of age. She complained of fudden chillings, which was fucceeded by faintnefs, giddinefs, throbbing pains in the head, flufhes in the jaw, reftleffnefs, wearinefs, and depreffion of fpirits. Ordered her $\frac{1}{2}$ dram fal nitri every hour and a half, diffolved in a cup of barley water, which the drank copioully of; her extremities were bathed in warm water. When I vifited her in the morning of the $I g t h$, found the had perfpired very much through the night, the pain in the head was much relieved, the flufhes in the face, and the wearinefs was gone off, and fhe was in every refpect much better. She had now taken about ten drams of nitre, and continued to take
$\frac{x}{2}$ dram
$\frac{1}{2}$ drain cwery 3 d or 4 th hour. 20th, Said fhe was now quite comfort, ir, but rather coftive, difcontinued the ufe of the nitre, and ordered her to take one ounce of vitriolated natron diffolved in a cup of warm water gruel, which operated very well. On the 2 Ift all the fymptoms were removed, leaving a debility which was removed by a nutritious diet, and moderate exercife. The mafter and miftrefs of this girl, who refided in the fame houfe, complained of a fore throat, and flight fever at the fame period the girl was indifpofed, which was removed by drinking freely of thin diluting drinks, a flender diet, and the partial ufe of the warm bath.

## CASE II.

Was that of a female aged 30 , whofe fymptoms were nearly the fame as cafe ift, except that the complained of a cough, dyfpnoea, and oppreffion at the breaft, which was immediately removed on the application of a blifter.

Several other cafes I have met with which I treated in a fimilar manner. I have generally
rally found the good effects of fal nitri freely adminiftered in thin diluting drinks. A light diet, frequent bathing the extremities in warm water, and the application of blifters, where the dyfpnœea and oppreffion at the breaft has been great. I have invariably obferved the antiphlogiftic plan, feveral males who were affected Ilightly, I have found a dofe of vitriolated natron remove the difeafe; fome cafes I met with which termiuated on the 3 or 4 th day, others not till the 8 th or 9th day. I have never employed bleeding or emetics. I have generally found where one part of a family had the difeafe in any confiderable degree, fome of the other part of the family, complained of flight fever, fore throat, cough, or pains in the head. I have generally found males to be the greatef proportion that were affected. I have not met with any relapfes, nor have I found any particular treatrnent required in the convalefcent fate ; I have generally recommended a nutritious diet, with moderate exercife. I have generally found this difeafe attack perfons from the age of 20 to 35 , and from that to

46 , or

46 , or 47 . It made its appearance in this neighbourhood, and within 10 or 12 miles of it, nearly at one and the fame time. And to fome of the inhabitants of this town, it has proved fatal.

## ARTICLE LXXIV.

From Mr. WALLER, of Gofport.

1. None excepting the Influenza, fcarlatina, and opthalmia.
2. About the beginning of March.
3. During the month of March.
4. About the latter end of May.
5. The cough and peripneumonia.
6. Varied but little, except in degree in thofe of the fame family.
7. Not one fatal cafe.
8. No ages or claffes more particularly affected, excepting fuch as prone to peripneumonic affections.
9. More of females.
II. Know not that any particular plan of treatment fubdued it more than another; neutral falines with antimonials chiefly employed.
10. Bleeding and emetics relieved for a feafon, and I think rather tended to fhorten the difeafe. Bleeding ufed in cafes more ftrongly

576 MEMOIRS OF THE
ftrongly marked with inflammation; and emetics, if early in the difeafe, and marks of pyrexia.
13. Diluent or light diet.
14. Recommended to be much in bed.
15. Gradual relief of fymptoms, but tedious cough.
15. to 20. Relapfes did occur, but were lefs fevere.
21. Phthifical and peripneumonic affections blended with this difeafe were fevere, and here one fatal cafe occurred in a patient upwards of 60 years, and impaired through hard fervice.
22. Think it was contagious from its general influence; feveral in a family, if not the whole, more or lefs affected. Yet many perfons I believe efcaped it.
24. In fucceffion, but no certain data.
27. In my practice the country around us was infected later than the town.
$3^{1}$. If this means any affection of the animal tribe, have heard that many cows have died this fpring.

July 2, 1803.

## A R T I C.L E LXXV.

From JOHN LIND, M.D: Haflar, August 17, 1803.

In the military Hofpital near Gofport, I learn from Dr. Bowles, whofe obfervations on it Dr. Pearfon has publifhed, the Influenza was fevere. In Haflar Hofpital it combined with fome cafes of typhus, but was otherwife fight änd difficultly tracéd.

## ARTICLE LXXVI.

$$
\text { From } \quad \text { Reigate. }
$$

r. The Influenza, or epidemical catarrh.
2. February 1 th.
3. Throughout March.
4. In May.
5. Fever and peripneumony.
6. Thofe who enjoyed the beft health previous to the difeafe were the leaft affected by it.
7. No.
8. In this diftrict, not one in 200.
9. The aged, the intemperate. Thofe who had weak lungs, or were by their employment expofed to the night air, or who lived hard, and were barely clothed.
10. I think females, probably from their being lefs expofed.
11. The fever, in moft inftances, being analogous to the typhus, I bled very few; but cleanfed the primx vix of bilious fordes with
an emetic; and frequently adminiftered the following cathartic pills i2 or 18 hours after. R. calomel. ppt. gr. iv. pulv. antimon. 1. gr. ij. conf, arom. q. f. ut f. pill. I proceeded in the cure with fmall dofes of antimonials," faline and camphorated medicines. Lac amygd. aq. ammon, acet. \&cc. Blifters had a good effect.
12. Anfwered in the foregoing.
13. The light, nutritious, and mucilaginous taken in fmall quantities, at fhort intervals.
14. Moderately warm, and dry, airy fituations.
15. Ceffation of febrile fymptoms. A fediment in the urine, return of appetite, and reft, free breathing, and expectoration.
16. Much depended on the patients taking care, particularly to avoid the night air.
17. I think more fevere, and the cough more violent.
18. No.
19. Very weak and debilitated. Some complained of rheumatic affections; others of a continuance of the cough, but I know of no inftance of phthifis pulmonalis fucceeding it.

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\mathrm{Pp}_{2} \quad \text { 20. Rom }
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20. Roborant and pectoral medicines, as g. myrrhæ, acid. vitriol. dil. or infur. rad. co-- lombæ, \&c.
21. In many cafes bilious complaints.
22. Inftances occurred of ftrong young people, as farmers' Cervants, \&cc. efcaping it, though living in families wherein it prevailed.
23. In a workhoufe in this neighbourhood (under my care) wherein there are $20^{\circ} 0$ people employed in a blanket manufaciory, wherein oil is ufed, no decided inftance of the Influenza occurred.
24. Generally at the fame time, or at fhort intervals.
25. The foil chiefly fandy.
26. Reigate, and the neighbourhood thereof, is fcreened from the north and eaft winds by lofty hills.
27. It was difcovered here, foon after its appearance in London.
28. The days were rather warm for the feafon, but the nights unufually cold.
29. I cannot pofitively anfwer the firft part of this queftion, but think it may be communicated.

I obferved that in lonely fituations where there was but little intercourfe with other places, it was by no means fo general as in towns, and villages.
30. Analogous, except in defluxions towards the head lefs general.
31. On inquiry amongt people who have large ftocks of cattle, I do not hear that赖ere was.

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## ARTICLE LXXVII.

From W. VAUGHAN, M.D. Rochefter.

1. The Influenza appeared firft at Brompw ton in the evening of the 25 th of February, when it feized twenty-eight of Mr. Hulet's fcholars. Out of this number fixteen were immediately fent home, and to the twelve who remained an emetic was adminiftered. There were twelve otbers, whom the difeafe fpared on the 25 th, and who afterwards efcaped it altogether.

Mr. and Mrs. Hulet cannot yet learn, that any adjacent place was previoufly attacked by this Influenza. And it is worthy of remark, that Mr. Stone's fchool, which is fituated in the next freet, had not a fingle fcholar affected with it.

Mr. Hulet's fchool lies open to the north.
The twelve fcholars, who had been vomited, and who drank plentifully during the night of weak wine-whey, were quite well!
by the next morning; but the fixteen, who had been conveyed kome, were all of them worfe. And indeed, the leaft attentive obfervers agree in this, that the Influenza, if left to itfelf, came to its height on the fecond day.

Such are the more remarkable circumftances, as they feem to me, of Mr. Hulet's fchool, of which the complement is about forty fcholars.
2. Of the Influenza, at Rochefter, I heard nothing till the 28th of February ; and as foon as I found, that the patients complained of coldnefs and fhuddering, I fufpected a fever of fome regular type, and endeavoured forthwith to learn it. This I did eafily : an evening paroxyfm in general began the difeafe, and was fucceeded by another at noon the next day:-two paroxyfms in one period, and the fecond the feverer paroxy fm; agreeably to the obfervation of Mr. and Mrs.Hulet, that the fixteen fcholars who were fent home, and for whom nothing was done, were worfe on the fecond day. In the fecond paroxyfm, the difeafe feemed as if come to its acmé : and the fourth paroxyfm, which

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correfponded with the fecond, ended with figns of crifis.

From this time, the type of the fever feemed changed for that of a fimple tertian; the coen days remaining calm, and the odd days being difturbed by only one flight fit.
3. But how foon was the Influenza difcernible? Its approach was marked by fymptoms of debility in all the functions, but in thofe more efpecially which fome modern phyfiologifts call external, or relative. (Phyfiologie parA. Richerand, Prolegom.ixxiv.) Pains of the head, and of the limbs, and of the cheft, were conftantly prefent in the beginning, and there was fometimes, among the precurfory figns, a moft diftreffing pain near the upper orifice of the fomach.

Thefe, in different degrees, happening fuddenly, and, as it were, without any evident caufe, but accompanied with more or lefs of catarrh, and ufhering in a horror about fix o'clock in the evening, feemed to me to conflitute the Influenza.
4. If the epidemics common to the feafon were more frequent, by confequence of the low temperature of the air, and the long con. tinuance
tinuance of a fharp wind from the eaft and the north-eaft, they were fo hybridized with the new one, fo approximated to it, fo affimilated with it, as, in moft cafes, not to admit of the remedies otherwife preferibed in them.

Pneumonia was, certainly, no part of this Influenza : in fome the pain of the cheft was not felt till the fecond paroxylim, and was even then lefs urgent than that of the head; in others the pain of the cheft was not conftant ; in none did it bear any proportion to the cough; and in all, perhaps, where fome form of pneumonia was fufpected, it was rather perfonated. Far be it from me to exprefs a doubt, that this Influenza was ever complicated with a true peripneumony. I do but affert my own experience, limited indeed as it is,
5. During the prevalence of this epidemic, I recollect two only, who died: one of pneumonia under which the had laboured for feveral years in fucceffion, another of pneumonia fupervening on an habitual afthma.
6. It feems now to be a queftion of great moment, whether this Influenza was conta-
gious? My opinion is, that it was not contagious : and this I infer, r. not only from what is already ftated refpecting Mr. Hulet's fchool, but alfo from this, that Mr. Hulet's child did not infect its nurfe:-2. from feveral in general falling ill at the fame time, in the fame houfe; or if falling ill one after another, doing fo without the poffibility of having caught it from thofe previoully af-fected:-3. from its not fparing perfons with iffues, blifters, \&c.-4. from reafoning by tnalogy: for, in the firft place, although fome efcape every contagion, ( $I$ in about 3 efcape the contagion of the jail fever, ) the proportion that did not fuffer the Influenza was greater than it could have been, if contagion had actually been diffufed or diffolved in the atmofphere; and, in the next place, if the fuddennefs of the weaknefs feemed to countenance the fuppofition of a contagion, the fuddennefs of the action was inconfiftent with what we know of other contagions: for they, all of them, produce " a difpofition to take on the morbid action," which difpofition is of a certain duration, according to the law of the frecific poifon.
7. No
7. No epizootic difeafe has prevailed here, or in the neighbourhood, during the laft twelve months.
8. As I faw no reafon to believe the InAluenza to be a contagious difeafe, fo I was not concerned in conjuring up anticontagious agents. Ablution with water and with vinegar, I ordered every where ; and, as impure air, independent of contagion, debilitates, I took care not only that my patients fhould have a conftant fupply of frefh cool air, but alfo that the unneceffary abftraction of oxygenous gas from the air of their apartments, by any means whatfoever, fhould, as much as poffible, be prevented.

However, accuftomed to look upon every fever with a fear that it is contagious, I was upon the alert; and if the Influenza had fpread any where, as from a centre, it would have been eafy to fop its progrefs by feparating the fick, and by a proper ufe of the oxymuriatic acid.

I endeavoured to keep the temperature of the air in fick rooms a little below, never above, $60^{\circ}$ of Fabrenheit.
9. The
9. The Influenza, when unconnected with any other difeafe, ran its fhort courfe without danger. To lic abed and promote perfiration by the gentleft means, to keep the bowels foluble, and to avoid all caufes of irritation, was all that prudence dictated to be done. Whey made with orange-juice was very grateful, and I ordered it frequently: others recommended pulvis antimonialis, which alone, and fometimes joined to calomel, had a very good effect.
10. Although I advifed the antiphlogiftic regimen, yet even when pneumonia was prefent, in the cafe alluded to in No. 5. I did not venture to direct venefection: for I faw the blood that had been drawn from this very weak, very irritable woman; and its appearance certainly did not juftify the drawing away of more. Pleurifies, which did not bear repeated venefection, were long fince obferved by the diligent commentator on Boeriaave (Comment in Aph. 1412). The learned De Haen and the judicious Mr. John IUnter were aware that venefection did not fuit every inflammation. And the
time will probably come, and that foon too, when not only the nature of the inflammation, but alfo its ftage, muft be confidered, before we order blood to be taken away.
11. In the very beginning of the Influenza, with a view to cut it flort, an emetic was, certainly, proper: but afterwards, and efpecially when the fever was "caput petens," or the lungs were much affected, it would, perhaps, have been improper. A paper on this fubject by Dr. Thomson of Montrofe is in the Edin. Med. Eflays and Obfervations, Vol. IV.-How vomiting acts in cutting fhort any epidemic, whether by exterminating a poifon before it has had time enough to produce its effects; or whether by deftroying the incipient effect, i. e. the difpofition, which is always prior to the action, I do not pretend to determine.

Where purges were indicated, I preferred magnefia vitriolata: and where the bowels were very inactive, or there was reafon to fufpect a coacervation of foces, I ordered calomel and an enema containing an" ounce, more or lefs, of natron vitriolatum, both to be repeated è re nata.
12. With
12. With refpect to diet, fo inconfiderable was the duration of the difeafe, that as initia morborum famem defiderant, total abftinence was rather enjoined.
13. For a pain of the fide I prefcribed a blifter, which in general removed, or, at leaft, relieved the pain. But always, whenever the lungs were affected, I limited the ufe of liquids, as well to diminifh the afflux of blood to that organ, as to prevent the fimulus of diftention.
14. If the head-ach was violent, a pediluvium, raifing the mercury to $96^{\circ}$, and the repeated exhibition of magnefia vitriolata, with finall dofes of antimonium tartarifatum, afforded very fpeedy relief. Did the former accelerate the motion of the blood through the brain, while the latter diminifhed its quantity, by making a derivation to the kidneys and bladder?
15. The cough yielded to mucilages with nitre, to decoctum hordei compofitum, to the fteam of hot water, \&zc. fquills, ammoniacum, ammonia, \&cc. feemed to me to be contra-indicated by the fever.
x6. After
16. After the fever, the cough and watchfulnefs were removed by pillula ftyracis, finctura opii camphorata, a diet rather ftrengthening than heating, and, above all, a change of air ; in a word, a change of place, when it could be undertaken without difturbing the patient's mind, proved the beft reftorative.
17. And, now, I will add, by way of fupplement, a fhort account of the difeafes, which I have obferved to follow the Influ* . enza, without endeavouring in the leaft to Show their connection with it.

Catarrh and pneumonia have ever fince occurred fporadically, as have likewife cynanche tonfillaris, cynanche pharyngea, and cynanche parotidea.

From about the beginning of June till the middle of July, an exanthematous fever prevailed, and was evidently contagious, although I have not been able to learn that it attacked any, except thofe whom the Influenza fpared. Some called it a fcarlet fever: but a fcarlet fever it was not; for there was no florid rednefs of the fkin, nor any defquamation of the cuticle.

Rochefter, Sept. 5, 1803.

## A R T I CLE LXXVIII.

From Mr. HODSON, Lewes. Sept. 8, 18 C3.

In anfwer to your letter refpeding the Insfluenza, I have to inform you that it was very prevalent in this town and neighbourhood in March laft. From the great refemblance which the difeafe in queftion had to a common catarrh, I cannot take upon me to fay exactly when it firf made its appearance here or when it ceafed; it was however at its utmoft beight about the middle of March, and I believe firtt appeared in the preceding month, and difappeared in April. We had heard of its prevailing in London, previous to its appearance here. The difeafe in general, as I have already faid, very much refembled a common cold; in thofe cafes which were more fevere than ordinary, a great depreffion of ftrength generally took place more fuddenly than might have been expected expected from the degree of fever, and even in milder cafes, languor and debility fo generally prevailed as to become a very ftriking feature in the difeafe. I met with two or three cafes in which the pulfe was remarkably flow. One was in a robuft lad about 18 , in whom the common fymptoms of the difeafe were very clearly marked: I faw him foon after the commencement of the attack, and found his pulfe only 40 in a minute; he however very foon got well, under fimple treatment. With regard to the remedies, if much pain in the head prevailed at the commencement of the attack, which frequently happened to a great degree, an emetic was of great fervice. In ordinary cafes, it was fufficient to keep the patient in bed for the firft day or two under the influence of antimonials, and the aq. amm. acet. or common faline mixture, taking care, however, not to carry the diaphoretic effect to too great an extent. In thofe cafes where the cough was very troublefome, I gave mucilaginous and demutcent medicines, with the occafional ufe of opiates, which I found very ufeful. I met Vol. VI. Q q with
with no cafe in which I judged it proper to bleed, but frequently had recourfe to blifters on the chert, with good effect. When the cough continued troublefome, after the fever had proity well fubfided, as was frequently the cafe, the common fquill pill of the difpenfatory appeared to me to be of great fervice. With a view to remore the debility which fo commonly prevailed during the convalefcent ftate, I generally gave the infuf. gentian. c. or quaffia, or inf. rofæ, in preference to the bark. I met with no cafe which proved fatal, exceepting two old men, who had neglected themfelves in the beginning, and one of them had been, for many years paft, extremely aflicted with afthma. Relapfes did not appear to me to be common. Males and females, as far as I could judge, were equally fubject to the difeafe ; it occurred lefs frequently in young fubjects, they were, however, not exempt from it, and I have met with it in infants. With regard to the Influenza being contagious, I am ftrongly inclined to think it is not. During the time the Influenza prevailed, the weather became much.
warmer for a few days; the difeafe, however, did not appear to be checked or rendered milder in confequence, but on the contrary, vomiting during that time occurred more frequently. I do not learn that any epizootic difeafe prevailed particularly at that time.

## AR TICLE LXXIX.

From LEONARD GILLESPIE, M. D. Londort.

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\text { June } 20,1803 \text {. }
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An epidemical catarrhal fever, or true Influenza, made its appearance at Fort Royal and St. Pierre's, Martinique, about the middle of July 1802 , affecting a great number of perfons and whole families: it was fuppofed by the inhabitants to be the forerunner of many other expected plagues, tranfported by their countrymen in a French corvette, arrived from France about this time; but this fuppofition feems altogether as fanciful as the name which was given it, that of " Le Chapeau quarré," (or the cocked hat,) from the hats worn by the French officers and foldiers, whom the people unjuftly charged with having imported this difeafe.

This complaint appeared to have arrived at its greateft height about the middle of Auguft,
and had pretty well difappeared about the autumnal equinox.

The fymptoms of this difeafe were generally difcoloration, dejection of fpirits, laffitude, head-ach, dry cough, hoarfenefs, oppreffion at the breaft, and flight dyfpncea: in the afternoon fever, preceded by flight chills, generally came on, which remitted towards morning with diaphorefis; returning daily from three to feven days. In fome patients, particularly in thofe of a phthifical habit, pleuritic ftitches occurred; whilft in perfons having weak bowels, particularly in children, and fcorbutics, the catarrhal difeafe cvidently attacked the inteftines, exciting gripes, tenefmus, and loofe mucous frools.

It proved fatal exclufively, as far as my own experience goes, only to patients who had previoully been affected with incipient or confirmed phthifis pulmonalis.

Women and children were more liable to be affected with this Influenza than adult males, yet of about five hundred prifoners of war, confined in fhips, at leaft one half of the number were affected with the com-

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plaint, 70 or 80 of them labouring under it at the fame time; a circumfance which fufficiently indicated that this difeafe was infectinus.

The moft fimple mode of treatment was found to be the moft fuccefiful. Blood letting was rarely indicated, and in forme cafes was found hurtful. Emetics in full dofes were not indicated; but antimonials in fmall and repeated dofes, as the pulvis antimonialis, vinum antimonii or kermes mineral, were found ferviceable, as expectorants and diaphoretics; guarding againft the exciting of a diarrhœa by their ufe. Purgatives required great caution in their adminiftration; when coftivenefs was prefent, emollient oily enemas, and oleum ricini, given in the form of a linctus (in which way it is often ufed with benefit in the Weft India Inands) were had recourfe to with advantage. Blifters were fometimes ufed with good effects, as were large plafters of pix Burgundica applied to the breaft or back.

Oily and mucilaginous pectorals, gentle anodynes, diaphoretic and ped sral beverages,
and pediluvia, (or warm bath in the remiffion of fever, ) were all occafionally had recourfe to with good effects.

When the catarrhal defluxion affected the bowels, after a fmall dofe of the vinum ipecacuanhæ, or of rhubarb, followed by an opiate, the columbo root with a mucilaginous diet, and fmall dofes of ipecacuanha with opium were found ferviceable.

As in the ifland of Martinique every febrile difeafe, particularly during the rainy feafon, is liable to affume the type of a remittent or intermittent fever, fo in this epidemic; that occurrence frequently was obferved; when the adminiftration of the infufion of the cortex cinchonæ or augufura in cold water was given with good effects, taking care that expectoration was not checked too much by the medicines; for,

The natural termination of this difeafe was by a critical evacuation by diaphorefis and expectoration, and every medicine which counteracted thefe falutary excretions, appeared to do harm.

This Influenza was the precurfor of the malignant yellow fever, or more properly Qq4 ardent
ardent fever, the caufos of Hippocrates, which, commencing in the beginning of September, amongtt the French feamen and foldiers lately arrived from France, committed the moft frightful devaftations amongft them; infomuch that out of 2500 veterans landed in September in Martinique, only 300 are faid to have remained in life at the latter end of December.

Meteorological phænomena appeared to be connected with this epidemic, and that which fucceeded to it. From the beginning of May, the time at which the fun paffes the zenith of Martinique, the weather became unufually rainy, fqually and unfettled, with very fevere and frequent thunder forms; whilft the wind hung very much in the fouth-eaft quarter; nor were thefe the only appearances denoting the fuperabundance of the electric fluid in the atmofphere, frequent and ftrong fhocks of earthquakes, particularly at the periods of the full moons of the $15^{\text {th }}$ of June, and of the fame date in July, accompanied by an unufual height of the tides, demonftrated, in a very awful manner, this powerful agency.

## ARTICLE LXXX.

Further Account of the lithontriptic Power of the muriatic Acid, as obferved by Mr. Peter Copland, in Lithiafis, and IEterus calculofus. - Extracted from a Paper, dated Swayfield, December 1800; read before the Society in March 1801.

The author, at a former period *, had already favoured the Society with a paper, containing four cafes on the fubject of the prefent communication, which was publifhed in the Society's Memoirs. He now informs us that he has continued to ufe, with fuccefs, the muriatic acid in calculous complaints, and relates feventeen illuftrative cafes, in addition to thofe juft mentioned, thefe cafes affording refults which correfpond entirely with thofe of his former experiments. It has not been

* See Memoirs of the Medical Society of London, Vol. V. p. 7 I .
thought
thought neceflary to publifh them at full length, but the Society has defired that a fummary account of them fhould be inferted in the prefent publication.

The dofe of acid ufed by Mr. Copland is from 30 to 50 drops, three times a-day. The conftant and uniform effect of this medicine, after a few dofes, is fated to be the appearance of a confiderable quantity of calculous fediment in the urine. This fediment is defcribed as confifting, in almoft every inftance, of red fond, the nature of which does not appear to have been chemically examined by the author. In a few cafes, however, there feems to have been alfo a difcharge of lightcoloured calculous matter; and in one inflance, two-ath coloured concretions, weighing fix grains, were found in the urine.

The general confequence of this difcharge appeared to be a confiderable relief of all the fymptoms, and, in by far the greateft number of the cafes related, a permanent cure was fuppofed to have been effected. In no inftance, however, was the prefence of a ftone in the bladder afcertained by examination previous to the exhibition of the acid, but from
from the quantity of calculous fediment obtained by the ufe of this medicine, amounting in one cafe to 110 grains, and in feveral to nearly as much, no doubt can be entertained as to the nature of the complaint. As a proof that this depofition was not afforded immediately from the urine, the author relates a cale, fuppofed to be calculous, in which eleven ounces of the acid were taken, in dofes of 60 drops, three times a-day, without producing the leaft fediment in the urine; and it was afterwards proved that the complaint had been miftaken, and that there had been no ftone in the bladder.

After the author's great fuccefs with the acid in lithiafis, he was led to try its effects in ICterus calculofus, and relates three cafes in which he has every reafon to fuppofe that this medicine had the defired effect, but confeffes that the event of fo few cafes is not fufficient to enable him to draw any pofitive conclufion with regard to the laft difeafe, although he confiders it as well worth the attention of practitioners.

## A R T I C L E LXXXI.

Sketch of a new Theory of the Cow-pock, with Remarks on contagious Diforders.

By JAMES SIMS, M.D. and L. L.D., Prefident of the Medical Sociery of London, V.P. of the Philanthropic and Horticultural Societies, F.A.S., and R. Ir. Ac., Hon. F. of the New York, Maffach. Richm. and Avignon Med. Soc. \&cc.

At a time when fo many doubts concerning the efficacy of vaccine inoculation, for the prevention of the fmall-pox, have been moft induftrioufly diffeminated, it becomes the duty of every perfon, who thinks be can in any wife do away the feemingly increafing prejudices againft that practice, to ftep forward in a matter fo nearly concerning the whole human race.

Previous, however, to what I fhall advance on this particular fubject, I beg leave to fay a few words declaratory of my general opinions concerning contagious diforders.

I have

I have often thought that in explaining the operations of our frame, we have made too little ufe of the doctrine of fermentation. There feems to be a regular progreffion through all nature, from the minuteft procefs of inanimate matter to the higheft one in the animal frame. The genera of fermentation in liquids, which wereformerly confined to three, are now beginning to be enlarged by chemifts, and may we not fuppofe that there exift many fpecies of each ? Might not an ingenious theorift fhew, that vegetation is entirely a fermentative procefs, occafioned by folar heat, and that the different fpecies of vegetables are owing to different fpecies of it ? Still carrying on the chain of reafoning; do we not fee in the animal, and particularly in the human frame, the progrefs of fermentation diftinctly pointed out? A little of the matter of any of the contagious diforders is inferted into the body, and that diforder is produced and no other; and as in the fermentation of liquids, after the procefs has been gone through, it is impoffible to excite the fame kind of fermentation again in the fame materials, even by the addition of a
ferment, fo, after the infectious difeafe has fubfided, the frame becomes incapable of it again. Is not this a plain reafon for our not being liable to the fmall-pox, and other contagious difeafes, conftitutionally, a fecond time?

I have only mentioned this inftance of fermentation in animals, but might I not go much farther, and fay, that they, as well as vegetables, are intirely the products of fermentation occafioned by heat?

Whilft a fudent at College I maintained in a Medical Society, an opinion that all contagious eruptive difeafes were communicated to mankind from other animals, among a particular fpecies of which each particular difeafe might be faid to be epizootic.

In I764, when I began the practice of phyfic, my thoughts were greatly employed upon inoculation of the fmall-pox. The Suttonian method coming into vogue about that time, greatly arrefted my attention, and as many points refpecting it were kept fecret, my mind was naturally much occupied with inveftigating the circumftances which gave it celebrity. Among other things which occurred to gne, I imagined that a proper dilution
tion of the virus before infertion, might tend to render the difeafe milder. With this view I tried a number of fluids, mofly bland ones, but mult acknowledge that I totally failed in my intention, the only difference which I could perceive being that the certainty of infection was much leffened, whilf the difeafe was not obvioufly mitigated.

I mention this and the former opinions, not with any defign to take up the time of the Society with their inveftigation at prefent, but to lead the way to fome farther ones, which I mean to throw out in the briefef manner, hoping in future to render them more than probable conjectures, when I thall endeavour to fill up the outline here fketched in a more extended work.

Although what I have fated as to fermentation, may hew why the fyftem having been conftitutionally affected by the fmall-pox, becomes incapable of receiving the fame diforder a fecond time, yet it will not fhew why the cow-pox fhould become an antidote to the fmall-pox; but if we fuppofe that the human frame is capable of giving infectious diforders to other animals, as well as receiving
them from them, a thing requiring little proof, we may eafily folve the difficulty. It is only fuppofing, what I have no doubt of being true, that the cow-pock is nothing more than the imall pox tranfplanted from man to the cow, by means of the infected hands of thofe who milk them, and that in paffing through the frame of that animal, it is diluted and made milder for its re-infertion into the human frame.

The proof of the cow-pock being only the fmall-pox transferred to the cow, may be obtained by innculating that animal by friction on a fore teat, or by the lancet from the fmall. pox, in a human fubject. We might, perhaps, fail in the firlt attempts, but this fhould not difcourage us, as the final fuccefs would fo nobly repay the trouble by extending our knowledge of nature in fo beneficial a manner to the human race.

As I mean this orily as a fketch of what I have to fay on this luljeet, fuch only being adapted to your publication, I fhall conclude with two remarks.

Had the cow-pock been at firft fuppored to arife from the finail pox, inftead of the greafe in a horle's heel, all the doubts concerning its efficacy as a preventive of the fmall-
pox would either never have exifted, or been done away long ere this: we fhould likewife have heard nothing of the wild fuggeftions of its being a beftial difeafe, nor the malignant fenfelefs ones of its being fcrophula. Would not the practitioner effentially ferve both himfelf and mankind at large, who, by inoculating a cow with the fmall pox, fhould afterwards by reinoculation from her produce the mitigated difeafe called the cow-pock in the human frame? The moft fceptical and timorous part of the public would have recourfe to him, in preference to all other vaccinators.

A fecond remark is, that we fee by this a probable mode of mitigating the plague, yellow fever, and other fcourges of the human race; not by inoculating them from one man into another, but by making them pafs, by infertion, through the bodies of various animals, until we difcover the one that will render them fufficiently mild to the human race.
Vol. VI. R I

## ARTICLE LXXXII.

A la Societé de Médecine à Londres.
Sa Majefté le Roi de Pruffe notre trés gracieux Souverain nous ayant ordonné du publier un confpectus concernant un prix qu'il deftine à celui qui fatisfera de la manière la plus complette aux queftions ènoncées dans celui, que nous avons l'honneur de vous envoyer ci-joint, nous vous prions de vouloir bien lui procurer toute la publicité que vous pourrés, et nous vous affûrons d'avance de notre reconnoiffance, et du plaifir que nous trouverons dans toute occafion de vous donner des preuves de la haute confideration, dont nous vous prions d'agréer les expreffions.

Berlin le 22 me May 1805.
Le Collège fuperieur de Médicine et de Santé de fa Majefté le Roi de Pruffe.

## CONSPECTUS

Quæftionis, a Collegio fupremo medico Bee rolinenfi, modum contagii febris fic dictæ flavæ fpectantis, propofitæ.

Febrem flavam illis jure adnumerari morbis, quibus peculiare eft, ab ægris ad fanos ope contagii transferri, experientia fat fuperque edocti fuimus.

Patet inde, contagiofum virus huic morbo proprium exiftere, quod ex illo gignitur, et caufam propagationis illius continet.
Quo vero modo contagium profeminetur nobis attamen hactenus non fatis innotuit, fed ita latet, ut in dubio hæreamus; an ægrorum contactus folus contagionem febris flavæ producat? vel an virus per atmofpheram transferatur, et tali modo fanos contaminare valeat? vel tandem : an miafma febris flava, peftis miafmatis ad inftar, corporibus omnigenis adhæreat, et illos ita inficiat, ut eorum Rr2 conm
contrectatio ad producendum morbum iftam contagiofum, fufficiat ?

Ulrimum hocce problema folvere et dubiam difficultatem evidenter enodare, ideo maximi eft momenti, quia cautelarum ad avertendam contagienem et compedum commercio imponendarum felectus, prxcipue ab hac pendet explicatione.

Hactenus in enucleanda hac qureftione, medici attentionem ac folertiam non fufficienter adhibuiffe videntur, et hinc potentiffimus Borufforum rex confultum duxit, Collegio medico fupremo Berolinenfi injungere, ut viris arte peritis, quibus non defuit occafio epidemiam febris flavx obfervandi ac e propinquo contemplandi, prœmium offerret ac proponeret circa hanc adhuc dubiam materiam; quo ad perfcrutandas et illuftrandas quæftiones propofitas adducerentur, ita ut illorum labore, repetitifque experimentis, ac factorum fedula inveftigatione, dubia hac de re in futurum prorfus evanefcant.

Hoc juffu, fupremum Collegium medicum Borufficum, artis peritos quibus hac de re obfervationes inftituere et experimenta facere licuit, ut huic labori operam navent, rogat ac invitas.
I. Dan-

## I.

Danturne facta minime dubia, et experimenta fide digna, quibus concludere liceat, miafina febris fic dictæ flavæ, corporibus exanimis et fubfantiis omnigenis ita inhærere poffe, ut eo contagium hominibus communicari poffit, qui contactui vel contrectationi eorum fefe exponunt? Poteftne ergo eo effici ut contagium febris iftius hac via ad regiones longinquas transferatur, et exitiofum ibi producat morbum?

## II.

Si hic propagationis ac contagii modus admittitur; quæritur: quænam fint vel facta vel experimenta quibus hæc opinio verofimilis aut certa reddatur? In cafu vero oppofito, opinio contraria rationibus ac factis itidem. contirmanda erit.

## III.

Licetne ut rem verofimilem, immo fide dignam admittere, vel abfque dubio confirmare, quod virusquo febris flava profeminatur productum ac progeneratio ipfius morbi fit? Inhæretne

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hoc miafma peculiariter uni vel alteri excreto animali et cuinam ?

## IV.

Patetne adeo natura et chemica mixtio hujus miafmatis, fic ut ex hac notione antidotum qualecunque, vel agens chemicum ad fubigendum vel extinguendum virus non impar innotefcat? Danturne alia prophylactica remedia contra hanc infectionem? Quænam funt illa? funtne in eorum numero quædam, quorum virtus efficax manifefta ac comprobata fit? quonam utendum eft methodo ut illorum ope fubfantix contaminatæ et inquinatæ hoc miafmate plenarie et ita liberentur, ut contagionem porro inferre et morbi exitiofi femina propagare non amplius valeant ?
V.

Licetne temporis fpatium ftatuere, ultrà quod, virus hocce virtutem fuam contagiofam et proprietates fuas nocivas, exferere nequeat? Daturne præfinitum tempus, quo elapfo, fubfantix inquinatæ ad propagandum morbum non amplius idoneæ funt et quo præterito
contagium, ut penitus extinctum haberi poffit?
VI.

Licetne difcrimen inter corpora ad fufcipiendum virus apta fabilire et inter illa differentiam admittere prout majorem vel minorem proclivitatem exferunt ad fufcipiendum aut ad confervandum aut in finu fuo fovendum hoc miafma? Exftantne corpora facultate miafma hocce fulcipiendi omnino expertia, dum alia huic exitiofx impregnationi fácillime fubjiciuntur et quænam funt utraque?
(Hîc tabula præcipuarum mercium fubjungenda foret, in qua, refpectu hujus quæftionis, hæ merces in diverfas claffes diftribuendae effent.)

## VII.

Quæritur porro: an morbus, qui fub nomine febris flavæ in America feptentrionali et ad littora maritima Hifpaniæ nec non Ligurni graffatus eft, unus idemque ubicunque fuerit morbus? an vero pro regionum diverlitate, difcrimen qualecunque quo ad ortum, decurfum et fymptomata norbi, cladem quam

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fparfit et contagionis progreflus, ftatuere liceat? ac quibufnam argumentis ftabiliri hæc opinio poteft?

## VIII.

Eftne denique febris flava morbus endemicus littoris? aut licuitne illum procul ab oris maritimis obfervare? videturne hæc diftantia a mare in morbi decurfu ejufque propagatione aliquid immutaffe?

Potentiffimi Borufforum regis juffu præmíum

Ducentorum ducatorum aureorum
illi pollicemur, qui quæftionibus propofitis apprime refpondebit, dubia illuftrabit, ac experimenta fua factis indubitatis fulcire conatus crit.

Ad victorem propius accedenti
Centum ducati aurei
premio crunt.
Commentationes latino, gallico, vel germanico idiomate diftincte confcriptæ et fequente infcriptione munitx :
(Au Collège fupérieur de médecine et de fanté de fa Majefté le Roi de Pruffe, a Berlin)
ante calendas Januarii 1807 tranfmitti debent. Tardius venientes a certamine excludentur.

Auctores invitantur ut quifque nomen, munus et domicilium fuum fchedula figillo obfignata includant, fimulque hanc fchedulam extrinfecus infcriptione qualibet infigniant quæ eadem effe debet ac in fronte libelli. Collegium medicum fupremum Borufficum de acceptis elaborationibus æquiffimum faciet judicium, illique palmam decernet, quæ facta extra omnem dubitationis aleam pofita fimulque enodlationes utiliores complectetur.

Propius accedenti fecundum adjudicabitur promium. Schedulæ fignatæ nomina aliorum competitorum continentes, illæfis figillis, comburentur.

Berolini die 17. Aprilis anni 1805.
Collegium fupremum medicum et fanitatis Borufficum.

## ARTICLE LXXXIII. <br> Medical Society of London.

To encourage the fending valuable papers to this Society, the Prefident propofes to give the following Medals at the Anniverfary in March, to be adjudged by the Council.

Firft, A gold medal, for the beft differtation on any fubject in Medicine, Surgery, Pharmacy, Midwifery, Anatomy, Chemiftry, or Natural Hiftory, written by a Fellow of the Society.

Second, A gold medal, for the beft differtation on any of the before-mentioned fubjects, written by any perfon, except a Fellow of the Society.

Third, filver medals, for the beft differtations on any of the before-mentioned fubjects, whether written by fellows of the Society, or others, which may be thought by the Council to merit them.

The papers for thefe Medals muft be delivered to the Medical Society, at their houfe in Bolt-Court, Fleet-Street, before the If day of January.
M. F. WAGSTAFFE, Regißter.

## DONATIONS

TOTHE
MEDIGAL SOCIETT OF LONDON,
Since the Publication of the laft Volume of Memoirs.

Society of Antiquaries. Some account of the Abbey Chusch at Bath.
Mr. Townley's account of the Ribchefter Antiquities.
Archæologia, $3^{\text {th }}$ vol.
Account of Durham Cathedral.
8th and $9^{\text {th }}$ plates of $4^{\text {th }}$ vol. of Monumenta Antiqua.
Archæologia, $14^{\text {th }}$ vol.
View of the Old Palace of Hampton Court.
3 Engravings of.
Society of Arts, \&c. $\quad 17$ Volumes of their Tranfactions. 18 th Vol. of ditto. rgth Vol. of ditto.

Adams, Jof. M. D. His ohfervations on the cancerous breaft.

Aikin, Mr. Hygeia, by Dr. Beddoes.
Blair, Mr. His Effays on the Venereal Difeafe, and its concomitant effects, PartII. Dr. Struves Treatife entitled, His Anthropology.
His account of a new invention, and direcion for ruptured perfons.
J. Bradley,

## [ 620 ]

J. Bradley, M.D. \&e. Pamphlet on Lichen Iflandicus.
H. G. Clough, M.D. Dunnour's Midwifery, 1782.

Cooper, Mr. Afley. His Treatife on Hernia.
Dr. Duncan. Annals of Modicine 1799, 1800, 1801. 1804.

Dr. Domier. His Obfervations on the Coisr-pock.
Field, Mr. Henry. Dr. Battie's Treatife on Madnefs.
Dr. Garnett. His Lectures on the Prefervation of Health.
Annals of Philofophy, Vol. I.
Hutchinfon, Mr. B. Biographia Medica, Vol. II.
Dr. Hulme. Experiments and Obfervations on Light iffing fpontaneoufly from various Bodies.
His Experiments and Obfervations on the Production of Light.

Hill, Mr. Daniel. Practical Obfervations on the Ule of Oxygen Air in the Cure of Difeafes.

Ed. Jenner, M. D. Inquiry into the Caufes and Effects of Variole Vaccine, ad Edit. $4^{\text {to }}$. 1 \&oo.

Kile, Mr. Meicoro'ogical Table.
Lettom, J. C. Mi.D. His Treatife on Tex, ad Edit. His Obfervations on Cow-pock. Da Colta's Concliology.

|  | [ 621] |
| :---: | :---: |
|  | Hints on Beneficence, 3 Vols. <br> Dr. Yeat's Oblervations on Chemiltry and Phyfiology. |
| Linnean Society. | Their Tranfactions, $5^{\text {th }}$ Vol. |
| Lempriere, Dr. | The Refult of his Literary Labours. |
| Lowdell, Dr. | Curtis's Flora Londinenfis, Vols. 1. |
| Lidderdale, Dr. H. | Differtatio Inauguralis de Imaginatione, by Dr. Robert Lidderdale. |
| Millar, Dr. | His Obfervations on the Change of public Opinion. |
| Outyd, Dr. G. | Two Dutch Magazines. |
| Parkinfon, Mr. | His Medical Admonitions, Vol. If. His Villager's Friend and Phyfician. <br> His Chemical Pocket-Book. |
| Pears, Mr. | Lis Cafes of Phthifis Pulmonalis fuccefsfully treated on the tonic Plan. |
| Platt, Mr. Charles. | Inquiry into the Efficacy of Oxygen in curing Syphilis. |
| Prichard, Dr. | Dr. Ruh's Account of the Yellow Fever. |
| Pearfon, Dr. Richard. | His Work on prevailing Epidemics. His Plan for preventing malignant Contagion. |
| Ring, Mr. | His Treatife on Cow pock, Part I. and if. |

## [ 622 ]

Naitè fur la fievre jaune d'Àmerique par Louis Valentin.
His Anfiver to Mr. Goldfon's Pam. phlet on Vaccination.

Sims, Js. M.D. Prefident. An Infrument called a Prognoftic.
A Print of fome of the Inftitutors of the Medical Society, elegantly framed.
Woodward's Theory of the Earth.
Bifhop Wilkin's Mercury.
Boyle's Works, a Volume.
F. L. Kreyfig, De Peripneumonia Nervofa feu Maligna Commentalio.

Sherfon, Dr.
A very old Edition of Sydenham's Methodus curandi febres, propriis Obfervationibus fuperftructa.

Schoolbred, Mr. His Reports on the Progrefs of Vac. cine Inoculation in Bengal.

Thunberg, Profeffor. Several Inaugural Differtations, 1799, 1805.

Turnbull, Mr. His Treatife on Ruptures.
Thornton, Dr. His Philofophy of Medicine.
His Illuftration of the Sexual Syftern of Linncus.

Valentinc $L$.
His Refultats de l'Inoculation de la Vaccine.

Vaughan, Mr. His Edition of Captain Woodward'e Narrative.

Willan, Dr. \begin{tabular}{l}
{$[623]$} <br>

White, Mr. W. $\quad$| His Defcription and Treatment of |
| :--- |
| cutaneous Difeafes. Order I. | <br>

Obfervations and Experiments on the <br>
broad leaved Willow Bark.
\end{tabular}

Wis Obfervations on Mr. Holme's
Treatment of Strictures in the
Urethra.
His Remarks on Strictures in the
Urethra.
His Cafes of Polypi.

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[^0]:    * Vide Mortoni Methodum curandi Febrem continuam rationalem, vol. i. p. $335^{-}$

    Vol. VI.

[^1]:    * See a paffage from Areticus, quoted in the latter part of this Paper, under the account of the mode in which the Morbus Cardiacus terminates.

[^2]:    * Kגиб

[^3]:    
    

    $$
    0 \cdot \delta x \mu x .
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[^4]:    
    
    
    
    
     -vag, tor עefor.

[^5]:    * See Indication i. 2. a. Aretæus exprefsly direcic, that the air thould be pure as well as cool. Katapos min,
    

    Coclius Aurelianus alludes to the fame in the following palfare:

    Adjungitur frigori inducto purgatior aer ingrediens locum, qui fira novitate ac miti acceniu reficiat zgrotantem. Curl. Aurel.

[^6]:    * See Memoirs of the Medical Society of London, vol, ,j. Arucle xxxii.

[^7]:    * Sce Morbid Poifons, p. II7.

[^8]:    * 2 Kings, chap. vii.

[^9]:    * See Morbid Anatomy, 2d Edition, p. 143, and 173.

[^10]:    * Journal de Médicin, Tome 68, Juillet 5786.
    + Odier Gotting anz. von. gel. Sachen. 1. m. c.
    $\ddagger$ Opufcul. Therap, Pav. vol. I. 1788.
    § Bonat. Journal de Medicin, vol. 74. 1588.

[^11]:    * Mr. Pearfon of the Lock Hofpital.

[^12]:    * A man now in the hofpital, who came in Auguft 27, 1801, informed me that his firft fymptom was a violent pain in the right hip behind the great trochanter, which attacked him after lying on the ground when he had been working in the hay harveft, on July 14th next preceding. This pain continued fome time in that fituation, and removed in a great meafure from thence into his groin, where it is at prefent. Some little uneafinefs ftill remains in the hip where it firf began, but very inconfiderable, compared with what it was at its commencement.

[^13]:    * It fhould however be noticed, that the conftruction of the dry-pump is fuch, as to admit, with great eafe and

[^14]:    * $\pi \varepsilon \rho \leqslant \tau \omega \nu$ हעтos $\pi \alpha \Omega \omega \nu$.
    + Cap. liv. lv. lvi. Lvif. lyiti.
    

[^15]:    
    
    
     rai yaraxtotooinv. C. LIV.
    
    

    Ev routa $\alpha \lambda \nu \xi \xi \%$ C. LIV.
    Vol. VI.

[^16]:    * EGsarai-exiffat-ftands out or projects-literally tramated.

[^17]:    * Rollo on Diabetes, p. 442-5.

[^18]:    * Rollo on Diabetes, p. 429 . + Ibid. p. 42 g. 468. The

[^19]:    * In the cales of Captain Mieredith, and of the General Officer, detailed by Mr. Cruickfhank, the extract left by cvaporation, amounted to between $T_{T}^{\frac{1}{T}}$ and $\frac{1}{T}$, of the weight of the urine employed. M.M. Nicolas and Gueudeville, fate the proportion to be ${ }^{1}$. In the cafes related by the correfpondents of Mr. Cruickfhank, and by Dr. Home, and Dr. Doblon, the weight of the urine, before the procefs, is not given with fufficient precifion to cnable us to obtain the exact propotion.

[^20]:    *Med. and Phyf. Journ. V. 5. p. 63. \$Ib. p. 63. Vol. VI.

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    the

