

Observations on the influenza, or epidemic catarrh : as it appeared in Bristol and its environs, during the months of May and June, 1782. To which is added, a meteorological journal of the weather / by A. Broughton.

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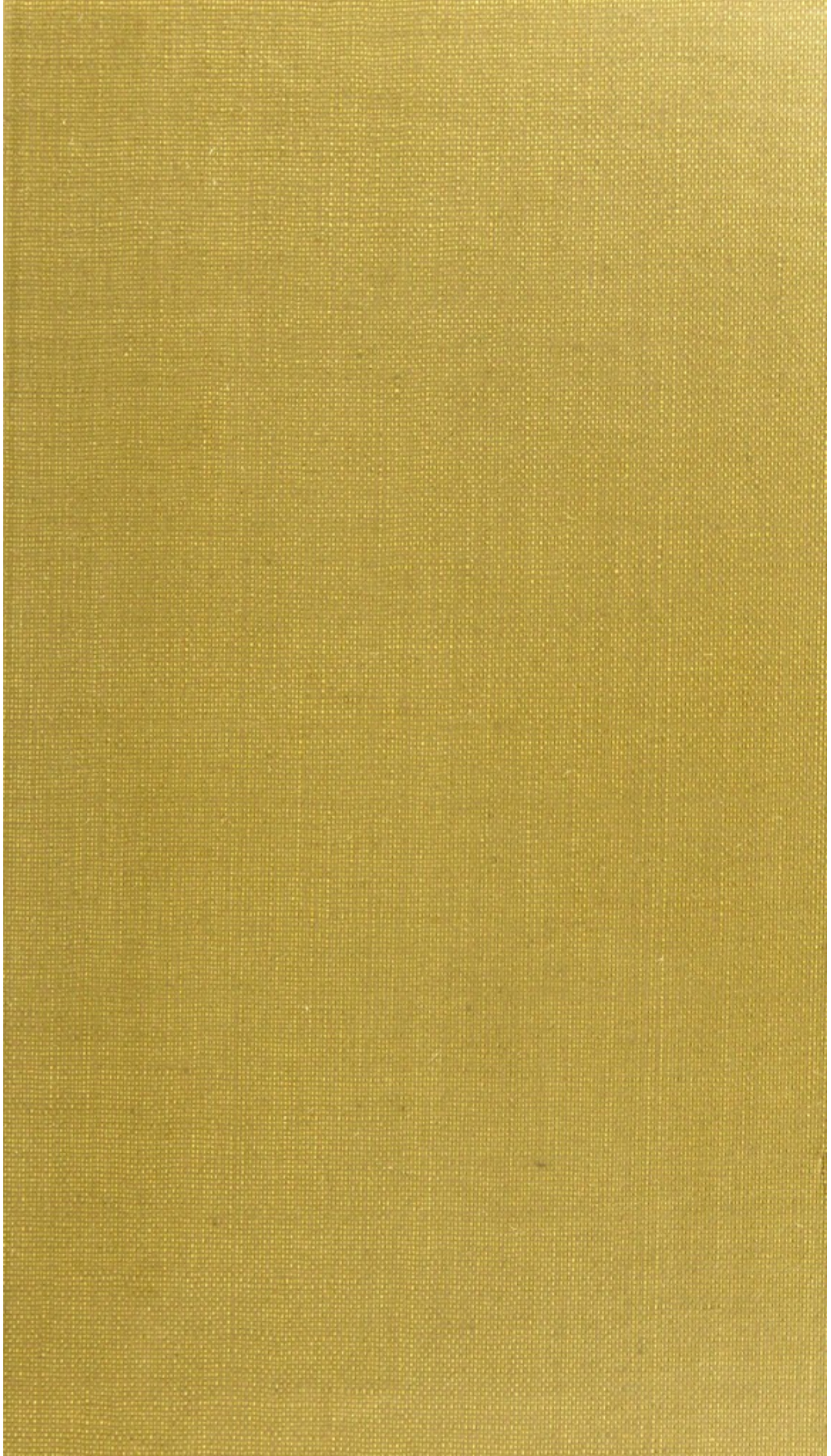
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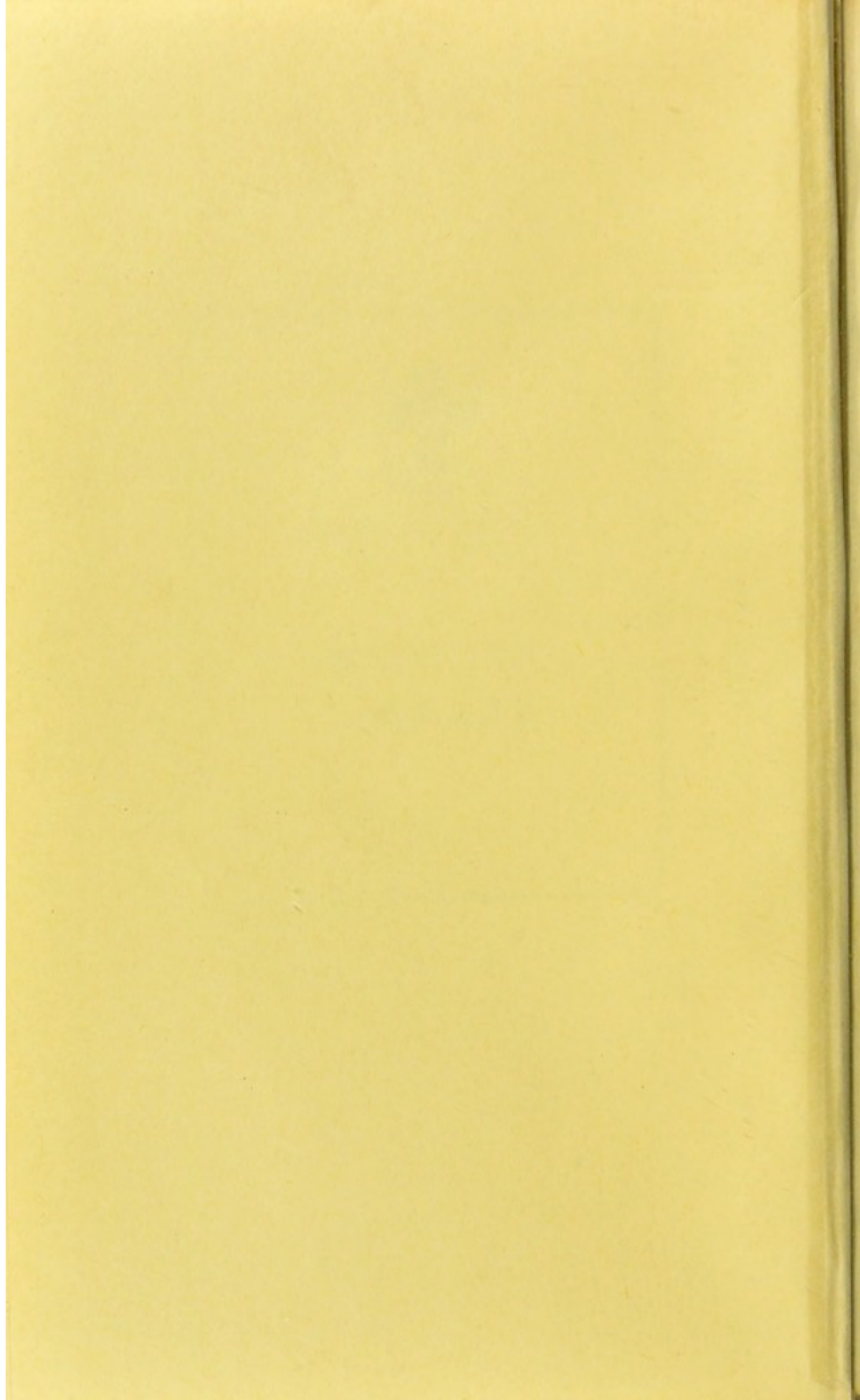
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OBSERVATIONS
ON THE
INFLUENZA,
OR
EPIDEMIC CATARRH;

As it appeared in *Bristol* and its *Environs*,
During the Months of MAY and JUNE, 1782.

To which is added,

A Meteorological Journal
Of the Weather.

By A. BROUGHTON, M. D.

Fellow of the Royal Medical Society of *Edinburgh*, and
one of the Physicians to the *Bristol* Infirmary.

L O N D O N :

Printed for G. ROBINSON, *Paternoster-Row*; and
J. B. BECKET, *Bristol*.

Price ONE SHILLING.

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ADVERTISEMENT.

*I*T was not till within these few days that the Author had formed in his own mind a determination of publishing an account of the Influenza, this resolution has arisen from the perusal of a pamphlet lately published on the subject, and from letters which he has received from Physicians in different parts of the country; from these it appears that the disease has in different places varied very much, both as to its symptoms and fatality; the Author's method of treating the subject may require some apology, but he hopes it will induce others in different parts of the kingdom to follow his example.

BRISTOL, July 16, 1782.

ADVERTISING

The following is a list of the names of the persons who have been appointed to the various committees of the Board of Directors of the Company. The names are given in the order in which they were appointed. The names of the members of the Board of Directors are given in the order in which they were elected. The names of the members of the various committees are given in the order in which they were appointed.

The Board of Directors consists of the following members: [illegible names]

The committees appointed are: [illegible names]

OBSERVATIONS
ON THE
INFLUENZA.

FROM the best information which I have been able to obtain this Disease made its appearance with us about the second week in May, and after raging with great rapidity during the remainder of that month, about the middle of June it began to abate, and by the end of it, or the beginning of July, it seems to have entirely disappeared.

Few epidemics which have made their appearance in this country seem to have spread so widely and

A 2 raged

raged so generally as this, the accounts from every part of the kingdom confirm this, it being rare for any person to have escaped it, but fortunately the disease has proved mild; few people having died under its influence.*

Previous to the appearance of this complaint among us, the state of the weather was such as few people living remember to have seen at that season of the year. The Thermometer on the first of May, at twelve o'clock mid-day, stood at 51 degrees of Fahrenheit's scale, and did not rise higher than 60 during

* The widest spreading epidemic of which we have any accurate account, is that which raged towards the end of the year 1732, and the beginning of 1733; this disease made its appearance in almost every part of Europe, and even affected the inhabitants of America; the accounts which we have hitherto received are not sufficient for us to determine the exact progress of the present epidemic over the different parts of the world, but there is reason for believing that it has appeared in most of the countries of Europe, and future accounts will probably inform us of its having extended itself still farther.

during the whole of the month; the Barometer was very low, and the quantity of rain which fell exceeded any thing ever known at that season of the year, there having been scarcely one day out of forty free from rain.

It is a difficult matter, nay almost impossible, to ascertain the real cause of any epidemic, some suppose that it is in every case to be attributed to cold acting on the surface of the body, others that it depends on a contagious matter mixed with the mass of fluids, and thrown off on particular parts;* however

* Some have supposed that the disease has been owing to the backwardness of the spring, in consequence of which the air has contained a superabundant quantity of phlogiston; this idea has arisen from a discovery of Doctor Priestly's, wherein he has attempted to prove that the fresh leaves of growing vegetables have a tendency to purify the air, by rendering it more dephlogisticated, and consequently more fit for animal respiration; but supposing that the air did contain a superabundant quantity of phlogiston, it would be difficult to determine in what manner it acted so as to produce the disease; but the truth is, that from some experi-

however this may be, we know for certain, that the application of cold to the human body does in many instances produce symptoms similar to those we shall presently describe, and it is not at all improbable, but that the large quantity of rain which fell might cause such a great degree of evaporation from the surface of the earth as to produce a cold sufficient to constrict the pores on the surface of the body, and the great consent between the exhalation from the lungs and the cutaneous perspiration may account for its particular determination to those parts.*

The

ments made at Bristol by my ingenious friend, Mr. *Becket*, it appears that the air, at the time when the disease raged most, contained no more phlogiston than what is usual.

* There are few people who have not at some period or other of their lives been sensible of the effects of cold, particularly when joined with moisture; in many a Coryza will be produced in a few minutes by lying in damp sheets, sitting in a wet room, or standing near wet linen; the effects here evidently arise from the cold acting on the surface of the body.

The symptoms attending this disease were much varied in different people, according to the circumstances of age, constitution, mode of living, &c. but in all, the symptoms of cough, defluxion, and some degree of fever were characterising marks of their being affected with what was then termed the fashionable disorder.

In most, the disease was ushered in by the symptoms usually attending all febrile attacks; they first complained of a considerable degree of debility or inability to go about their usual occupations, this was soon succeeded by a cold shivering, or sensation of cold over the body, soon there appeared an unusual warmth over the surface, attended with pain of the head, anxiety, thirst, and loss of appetite.

The heat in general seemed to be uniform over the whole body, and in many cases pungent, similar to what occurs in the Typhus, or low nervous fever.

In most of those whom I had occasion to see, the pulse was much quicker and stronger than natural, from ninety to one hundred strokes in a minute; during the height of the fever there frequently appeared a suffusion of blood on the cornea of both eyes, and in many the head was so much affected as to cause delirium; the tongue appeared white and furred as in other febrile diseases.

Together with the pain of the head, patients complained of pain all over the body, or rather a general soreness, similar to that which usually accompanies febrile attacks; in some however it was
 confined

confined to particular parts, and appeared under the form of Rheumatism.

In all, there was a cough more or less violent from the beginning, with a copious defluxion of a thin matter from the eyes and nose, which in many cases was so acrid as to blister the parts over which it passed; the irritation arising from this acrid matter acting on the membrane lining the nose, produced a sneezing, which was the more troublesome as it increased the pain of the head; this circumstance also caused a foreness about the breast, which however was never complained of but after a violent fit of coughing or sneezing.

From the same irritating cause we may explain why in some the throat was affected; on inspecting the parts of such as complained of

this symptom, the tonsils appeared somewhat enlarged, with an inflammation of all the surrounding parts; but in general this was only slight, and the difficulty of swallowing not very troublesome.

In none of those who came within my observation did the irritation seem to extend itself farther than the Trachea; I have, however, been informed, that in some few cases there was an evident affection of the Pleura, attended with considerable Dyspnœa, but this did not seem a concomitant of the disease, but rather to have arisen from an imprudent management on the first attack of the disorder.

The belly was in general bound during the whole progress of the disease, unless where purgatives had been given early; but in
some

some few cases a Diarrhœa of one or two days continuance carried off the complaint, and in such the symptoms of fever were very trifling, and the cough and defluxion no ways troublesome.

Such were the symptoms which usually accompanied this affection; their duration was various, but in general they seldom continued for more than one week, in some two or three days, and others were one day seized with the disease, and the next day were able to follow their usual occupations. In such as were treated in a proper manner, the symptoms of fever generally abated after the first or second day, the cough and other symptoms gradually went off, and no other inconvenience was felt, than a considerable
degree

degree of weakness, which however was recovered in the course of a few days.

But although in general the symptoms were thus slight, yet some few were seized in a more alarming manner, and in such the disease put on a more serious aspect. I have been informed of one or two people, who, without any previous symptom of disease, suddenly fell down, apparently in what is termed a fainting fit; on the going off of which they complained of great lassitude, which was soon succeeded by all the symptoms of fever above enumerated, and in these the disease continued for several weeks, attended with very alarming circumstances.

It

It would be impossible to enumerate all the variety of symptoms which appeared during the progress of this disease; one, however, I shall notice, as it was remarkable, and as it appeared in two patients, who were attended by a very judicious practitioner of my acquaintance, and from whom I received the account; on the second day after being seized with the ordinary symptoms of the disease, they complained of a difficulty in passing water, which gradually increased as the symptoms advanced, but on the going off of the disease, the violence of this symptom abated, and was entirely relieved on the body's returning to its usual state.

In general, little danger was to be apprehended from the disease where it appeared in persons

sons who had previously enjoyed a good state of health; but in those who were at that time labouring under, or had been previously weakened by disease, the prognosis was unfavorable, as the symptoms ran so high as to threaten danger; but the greatest apprehension arose from the probability of its acting as an exciting cause to pulmonary consumption, and indeed in many the continuance of the cough, and the accession of other symptoms seem to threaten such an event.

With a view of preventing the disease little could be done, as the attack was so sudden, and the symptoms so rapid in their progress; however during the prevalence of an epidemic, people would in general do well to live rather better than usual, to drink
a few

a few glasses of generous wine beyond their usual quantity: this practice would seem reasonable, when we consider, that during the prevalence of an epidemic those are first seized whose systems are the weakest; the history of every epidemic confirms the truth of this observation.*

With regard to the method of cure, in general the symptoms were so mild, and the progress of them so rapid, that there was little time for making observation on the efficacy of any particular mode; in some few cases however, an opportunity offered of ascertaining the effects of certain remedies, and of determining to which the preference was to be given.

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* This was a practice which I followed and recommended to many others, who with myself were so fortunate as to escape the disease.

There were some practitioners who on the first attack of the symptoms of fever recommended the use of blood-letting, and I know of none who died under this practice. I am, however, much inclined to suspect that all those treated in this manner were much longer in recovering than those in whom the lancet was not used;* although in many the symptoms of inflammation ran very high, yet a purgative remedy generally procured some remission; that most commonly used was the decoctum Tamar. cum Sena. Where the symptoms of fever ran very high, with great oppression and difficulty of breathing, a solution of emetic Tartar so as to produce vomiting, seemed to afford much relief, and where it produced some degree of diaphoresis

* In very full, plethoric habits, it may perhaps be advisable to take away a few ounces of blood, but it should always be done with caution.

diaphoresis the good effects were still more evident. It was not however in every case that either of these remedies could be administered; for some on the first attack complained of pain in the bowels attended with a diarrhœa, and such were only to be relieved by opiates, a few doses answered.

After the belly had been gently opened by a purgative remedy, the use of mild diaphoretics seemed to afford much relief; with this intention a saline Julep with Spiritus Mindereri, or a few drops of the Antimonial Wine might be used; many however had recourse to the Pulvis Doveri, but I suspect that the use of this remedy would rather tend to increase the symptoms by causing too great a degree of irritation, which on account of the violence of the cough was to be carefully avoided; in

many cases Jame's Powder is said to have been used with success. During the operation of these remedies it was necessary to confine the patient within doors, carefully to avoid cold, and to promote their effects by drinking plentifully of diluting liquors; such as water-gruel, barley-water, or a decoction of bran, either of which may be made more palatable by the addition of a little sugar and lemon juice.

Emetics, as I have before observed, were seldom ventured on unless in cases where the symptoms of fever ran very high; it is however probable that emetic Tartar exhibited in small doses so as to procure gentle vomiting might have been attended with good effects, as from its operation in this way some degree of sweating is generally produced, which
might

might have been promoted by some of the diluting liquors above mentioned.

With a view of diminishing the tendency to inflammation, it was a common practice not only here but in other places to exhibit the Sal Nitri either in pectoral decoction or some other suitable vehicle; but how far this remedy was adviseable I think admits of some dispute; I am aware that in many cases where there is a tendency to inflammation, its exhibition is often attended with considerable advantage; but where a cough is joined with it as was the case in the present disease, I think I have seen the symptoms aggravated by it, at least I am persuaded that in most of those cases where I ordered it, the cough was not much relieved. I have known several instances of people who could not take Nitre

in

in consequence of the cough which it excited; and I have been informed of a Gentleman in whom the exhibition of a few grains of Nitre in a glyster excited a violent fit of coughing.

In order to alleviate the cough, a great variety of pectoral or demulcent remedies were used, but the best seem to be either a Linctus with Conf. Rosar. and Syr. Papav. errat. or mixtures with Spermacæti; in cases where the cough was violent disturbing the patient's rest during the night, a few drops of Tinctura Thebaica, or a little Syr. e' Meconio were used with advantage.

On the going off of the disease it often happened that the matter secreted by the glands about the Bronchiæ was so thick that it was with difficulty the patient could spit

spit it up, in such cases some of the gently stimulating expectorants, as the Lac. Fœtidum, or Lac. Ammoniacum afforded relief, where these failed it was necessary to apply a blister between the shoulders.

Notwithstanding the fever and other symptoms were relieved, yet in many the cough remained and continued for a long time with considerable violence; in such cases I seldom found any remedy to succeed so well as an emetic, and I have since been informed by several practitioners, that they have found the same remedy the most effectual. I cannot here avoid mentioning the case of a child of eight years old, whom I was sent for to visit; she had for several days laboured under the Influenza attended with the usual symptoms, however on the afternoon of the

22d of May, she was seized with a fit of coughing which continued for eight hours almost without intermission. I ordered two grains of emetic Tartar to be dissolved in two ounces of warm water, and one spoonful to be exhibited every quarter of an hour; in less than five minutes after taking the first dose, and before there was any evident nausea, the cough ceased, in about ten minutes the contents of the stomach were discharged, and soon after the child fell asleep, and continued sleeping till the next morning, without coughing once during the night; the next day the cough returned, but was slight, and was easily removed in the course of a day or two by the use of a saline Julep with Spermacæti. Perhaps in cases where the cough is not relieved by the exhibition of the first emetic, it might be proper to administer

minister a second on the succeeding evening.

But it has not happened that in every case this practice has proved successful; for in spite of every remedy the cough has in some continued, and seems to threaten pulmonary consumption; such people cannot be too cautious how they conduct themselves, for in habits disposed to consumption, the slightest cause will often induce the disease;* to avoid this I would advise that such people should retire into the country, use moderate exercise in the open air, and live chiefly on a milk diet; if the cough should be violent during the night, I would recommend the

D following

* Although Catarrh may in some few instances lay the foundation for pulmonary consumption, yet I believe the instances are not so common as is generally supposed; there is scarcely a person who has not at some period or other of his life had a Catarrh, yet there is not one in five thousand of those who have had Pthisis Pulmonalis.

following pills to be taken at bed-time.

R Gummi Myrrh. pulv. gr. xii.
 Extract. Thebaic. gr. j.
 Muc. Gum. arab. q. f. ut fiant
 pill. tres.

These may be repeated every, or every other night, as circumstances require. If the situation of the patient be such that he cannot have the benefit of the country air, he should be advised to wear a flannel waistcoat next the skin, to be out in the open air as much as possible during fair weather, and to abstain from all animal food and strong liquors, his diet to be chiefly milk.



E X T R A C T

F R O M

A Meteorological Journal,

From the 20th of *April*, to the 20th of *June*, 1782,Kept at *Bristol*, by Mr. BECKET.

THE situation of the house where this Journal is kept, is near the centre of the city, facing the S. E.—The observations are made with a large perpendicular Barometer, with an open cistern, the bore of the tube half an inch diameter, placed in a room up one pair of stairs, about 50 feet above the bed of the AVON.—Two Thermometers (Fahrenheit's Scale) placed in the open air at the top of the house, screened from the rays of the sun: When there is any difference between the Thermometers, the *Mean* is always taken.—Two *Pluviometers*, or Rain Gauges, are also situated so as to receive the rain in all directions. The hours of observation, in the following abstract, are 8 in the morning, and 4 in the afternoon.

1782 April	H	Ther.	Bar.	Winds.	Weather and Phenomena.
20	8	42	29.71	N. 2	Dark and cloudy, with rain
	4	52.5	—65	S. E. 2	Var.
21	8	49	—60	S. E. 2	Var. many clouds, rain
	4	48.5	—54	S. S. W. 5	Ditto
22	8	49	—79	S. 3	Mostly cloudy, with rain in the night
	4	50	—76		
23	8	50.5	—67	S. E. 3	Var. cloudy and rain, with some sunsh.
	4	48	—69		
24	8	52	—52	E. 1	Thick and cloudy, with rain
	4	54	—37	S. E. 2	
25	8	51.5	—46	N. W. 1	Sunshine, with clouds, var.
	4	53	—52	N. N. E. 2	
26	8	43	—67	N. 1	Cloudy all day
	4	47	—76		
27	8	44	—86	N. E. 2	Ditto
	4	45	—88	E. 2	
28	8	43	—93	E. 3	Ditto, rain in the night
	4	46	—91	E. N. E. 4	
29	8	42.5	—91	E. 5	Rain
	4	44	—94	E. 4	Cloudy
30	8	41.5	30.07	E. 5	Var. sunsh. and clouds.
	4	51.5	—05	E. 5	

REMARKS in the Month of *April*.

Greatest height of the Thermometer, 12th day at noon 64 deg.
 Least height ditto, diff. days, at 8 A. M. 40
 Mean* ditto, 45.68
 Greatest height of the Barometer, 8th day at 8 A. M. 30.12
 Least height ditto, 1st day at 8 P. M. 28.40
 Mean ditto, 29.85
 Quantity of Rain (inches) 3.38

This month, for the most part, was cloudy and disagreeable; Rain part of 17 days; 2 days of snow, and not one day fair. The wind variable,—chiefly from the North and East.

* The mean heights are not taken from the figures inserted in these Extracts, but from the mean of four daily observations.

The figures in the column of winds, (from 1 to 6) denote the degree of strength; 1 being a gentle breeze, 6 a very strong wind.

1782 May	H	Ther.	Bar.	Winds.	Weather and Phenomena.
1	8 4	43 49	30.06 —02	E. N. E. 3 N. E. 2	Frosty morning, fair, var. Cloudy
2	8 4	44 48	—02 29.95	N. E. 1 N. E. 2	Cloudy all day
3	8 4	45.5 48	—87 —82	E. 1 N. E. 1	Var. mostly cloudy
4	8 4	45 52	—75 —70	N. E. 1	Ditto
5	8 4	42 49	—73 —71	N. N. E. 2	Cloudy
6	8 4	44 46.5	—81 —82	N. 2	Ditto, rain at noon
7	8 4	48 51	—97 —98	N. 1 N. W. 1	Cloudy all day
8	8 4	48.5 52	—94 —81	S. E. 2	Fair morning, afterwards cloudy
9	8 4	48 55	—56 —54	S. E. 3	Cloudy all day
10	8 4	51.5 55	—64 —66	E. S. E. 2 S. W. 2	Var. small rain Cloudy
11	8 4	52 50	—57 —50	S. 4	Rainy most part of the day
12	8 4	53.5 54	—49 —53	S. W. 4	Var. with thunder storms
13	8 4	53 56	—68 —71	S. W. 4 S. 4	Cloudy, rain Var.
14	8 4	54 56	—50 —40	E. S. E. 3 S. 2	Rainy most of the day
15	8 4	55 57	—45 —43	S. 5 S. S. W. 4	Variable, with rain
16	8 4	54 54	—42 —48	S. W. 3	Mostly cloudy, some showers

1782 May	H	Ther.	Bar.	Winds.	Weather and Phenomena.
17	8	54	29.20	S. 2	Rainy
	4	53.5	— .00	S. W. 3	
18	8	50	— .36	W. 5	Var. clouds and sunsh.
	4	51	— .48		
19	8	50	— .68	N. 2	Cloudy and rain
	4	48	— .85	N. N. W. 2	
20	8	44.5	— .91	S. 2	Ditto
	4	46.5	— .77	E. 4	
21	8	47	— .56	N. E. 4	Rainy
	4	49	— .61	S. W. 1	
22	8	46	— .60	N. W. 2	Many clouds, rain in the night
	4	47.5	— .60		
23	8	49.5	— .43	S. 4	Var. dark clouds, rain
	4	55	— .46		
24	8	49	— .56	N. W. 1	Rain
	4	50	— .84	N. W. 3	Var. sunsh.
25	8	48.5	30.03	S. W. 3	Sunsh. showery
	4	50	29.90		
26	8	53.5	30.00	W. 4	Var. with rain
	4	54	— .01	N. W. 3	
27	8	56	29.81	S. S. W. 3	Rainy, and dark clouds
	4	60	— .84	S. W. 1	
28	8	58	— .86	S. 3	Cloudy
	4	63	— .70	E. 2	Thunder storm
29	8	58	— .65	S. S. W. 3	Cloudy, and rain
	4	58	— .70	W. 2	
30	8	55.5	— .69	S. S. W. 5	Cloudy, no rain
	4	60	— .64		
31	8	56	— .63	S. W. 2	Var. some showers
	4	63	— .63	W. 2	

REMARKS in the Month of *May*.

Greatest height of the Thermometer, 28th day at noon 66 deg.

Least height ditto, 5th day at 8 A. M. 42.

Mean ditto, 52. 18.

Greatest height of the Barometer, 1st day at 8 A. M. 30.06.

Least height ditto, 17th day at 8 P. M. 28.96.

Mean ditto, 29.77.

Quantity of Rain 3. 5.

This month, no doubt, will be remarkable in all the Meteorological Annals of Europe, for its unusual degree of Cold and Humidity, with a gloomy and uncommonly disturbed state of the atmosphere; the consequences of which have been evident in the disorders produced both in the animal and vegetable system.—It rained here part of 20 days, and all the other days were cloudy and hazy. The wind generally between the S. and S. W. frequently strong.

1782 June	H	Ther.	Bar.	Winds.	Weather and Phenomena.
1	8	50	29.80	N. E. 2	Cold rain, vari
	4	56	— .88		
2	8	55	30.05	N. W. 3	Var. clouds and sunsh.
	4	57	— .09		
3	8	56	— .17	N. W. 2	Cloudy, some rain
	4	57.5	— .20		
4	8	58	— .21	N. W. 2 W. 3	Variable
	4	57	— .16		
5	8	56	— .15	no wind	Mostly cloudy
	4	58	— .15		
6	8	57.5	— .19	N. W. 1	Fair, light clouds
	4	70	— .16		
7	8	58	— .19	S. 2	Fair
	4	69.5	— .14		
8	8	61.5	29.96	S. E. 1 S. 2	Hazy Small rain
	4	64	— .91		
9	8	58	— .73	S. 4	Rain, cloudy
	4	65	— .70		
10	8	55	— .49	S. W. 4	Var. sunsh. clouds
	4	62	— .56		
11	8	56	— .45	S. W. 4 W. 5	Rain, var. clear
	4	61	— .66		
12	8	56	— .76	S. W. 2 S. 2	Dark and cloudy, rain
	4	62	— .67		
13	8	55.5	— .64	W. 6 S. W. 4	Many clouds, var.
	4	62	— .85		
14	8	57	— .95	S. W. 4	Var. Fair, light clouds
	4	67	30.00		
15	8	66	— .13	S. 3 S. S. W. 3	Fair, no clouds
	4	76	— .17		
16	8	67.5	— .26	E. S. E. 2	Fair
	4	84	— .20		
17	8	72.5	— .12	N. E. 2 E. 4	Fair, lightning in the night
	4	87	— .00		
18	8	70	— .00	E. 1 W. 3	Thick air, thunder storm Var.
	4	63	— .10		
19	8	61.5	— .30	W. 2	Fair
	4	78	— .33		
20	8	59	— .34	no wind E. 1	Dark and thick Sunsh. clouds
	4	78	— .31		

REMARKS in the Month of *June*.

Greatest height of the Thermometer, 17th day at 1 A. M. 89 deg.
 Least height ditto, 1st day at 8 A. M. 50
 Mean ditto, 66.10
 Greatest height of the Barometer, 22d day at 8 A. M. 30.55
 Least height ditto, 11th day at 8 A. M. 29.45
 Mean ditto, 30.07
 Quantity of Rain 1.43

The beginning of this month was cold and rainy. Towards the middle about a week or ten days fair and warm weather; the latter part variable, rain part of 8 days.

A remarkable change in the state of the atmosphere occurred between the 17th and 18th of this month; on the former of which days, between 1 and 2 in the afternoon, the Thermometer stood at full 89 degrees, in the shade; the next day, in the evening, it sunk to 55.

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COMPLECTENS

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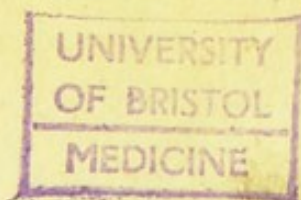
P L A N T A R U M

P E R

Insulas *Britannicas* sponte nascentium :

ex Linnæo aliisque

DESUMPTOS.



1843

Report of the Board of Trustees

of the University of Michigan

for the year ending June 30, 1843

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