

**An inquiry into the causes which produce, preserve, and propagate febrile contagious diseases, in Newcastle and Gateshead : with a detail of interesting facts, relative to the fever which prevailed in the months of October and November last, accompanied with a report of the unfortunate persons of respectability who fell victims to the disease, and a correct statement of the fever as it appeared amongst the military, general remarks on the disease, the decisive means of insuring the safety of the inhabitants, &c.; &c.; / by a Member of the College of Surgeons in London, &c.; &c.; &c.;**

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AN INQUIRY

INTO

THE CAUSES WHICH PRODUCE, PRESERVE, AND  
PROPAGATE

*FEBRILE CONTAGIOUS DISEASES,*

IN NEWCASTLE AND GATESHEAD;

WITH

A DETAIL OF INTERESTING FACTS,

*Relative to the Fever which prevailed in the Months of Octo-  
ber and November last;*

ACCOMPANIED WITH

A Report of the unfortunate Persons of Respectability  
who fell Victims to the Disease,

AND A

CORRECT STATEMENT OF THE FEVER AS IT APPEARED  
AMONGST THE MILITARY.

GENERAL REMARKS ON THE DISEASE.

*The decisive Means of insuring the Safety of the Inhabi-  
tants, &c. &c.*

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BY

*A Member of the College of Surgeons in London,  
&c. &c. &c.*

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1804.



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## ADVERTISEMENT.



*THE following pages were some time ago commenced with an intention of explaining the origin, nature, and progress of the fever which prevailed in Newcastle and Gateshead, in the months of October and November last. The publication has been delayed in consequence of repeated interruptions from professional duties, and many of the observations being prepared for the press at different intervals, a want of connection and arrangement has unavoidably ensued; how far the writer may have succeeded in the attempt, the reader will determine. If the investigation of truth, as it concerns the health of the individual, and a correct and faithful detail of local circumstances, can throw any light on the mysteries of a disease whose source has been variously stated, the success will afford ample recompence for the trouble and danger in exploring the contaminated receptacles*



*receptacles of the indigent, where the seeds of contagion first began to vegetate, and not as was imagined, "in the general atmosphere," "on board an American vessel," or "in the soldier's knapsack."*

*The writer is indebted to the Surgeon of the Second Staffordshire Militia for many material circumstances relative to the prevalence of disease in that regiment, and under his authority the sick report has been published. For the general information and decisive evidence, the writer is indebted to that valuable collection of papers, published by Dr Clark, extracts of which he has taken the liberty of inserting in this pamphlet.*

Newcastle, April 24, 1804.

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*Errata.*—Page 4, line 6 from the bottom, for *considerable distance*, read *remote period*.—Page 12, line 3 from the bottom, for *Mr*, read *Mrs*.



## REMARKS, &c.

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STATE OF THE INDIGENT AS PRODUCING INFECTIOUS FEVERS IN NEWCASTLE, AND THE CAUSES WHICH PRESERVE AND PROPAGATE CONTAGION.

IT is not the intention of the writer to reflect on parochial consideration, or to exaggerate the miserable situations of the indigent in this town, when a contagious fever appears amongst them, which may remove the sole dependance of a numerous family, or reduce to extreme want the unhappy survivors, whose support arises from some laborious employment, which they are for a great length of time incapable of exercising in consequence of the



impaired strength of body and mind occasioned by disease and poor diet.

The writer, anxious to trace the source of infection which was lately communicated to many of the respectable inhabitants of the town, has been at considerable pains in visiting the habitations of the infected poor, particularly where fever has had a melancholy termination. It is impossible to give a proper representation of the wretched state of many of the habitations of the indigent, situated in the confined lanes from the Quayside, the Castle-Garth, and Sandgate, which are kept in a most filthy state, and, to a stranger, would appear inimical to the *existence* of human beings; where each small unventilated apartment of the house contains a family, with lodgers, in number from five to seven, and seldom more than two beds for the whole.

The want of convenient *offices* in the neighbourhood is attended with many very unpleasant circumstances, as it induces the lazy inmates to make use of chamber *utensils*, which are suffered to remain in the most offensive state for several days, and are then emptied out of the windows; the consequences of which may be readily conceived.

The



The writer, a short time ago, had occasion to visit a soldier ill of the fever; his lodgings were in the garret of a miserable house, situated in the very filthiest part of the Castle-Garth. It was divided into six small apartments, and occupied by different families, to the number of twenty-six persons in all. The garret contained three very wretched beds, with two persons sleeping in each. It measured about twelve feet in length and seven in breadth, and its greatest height would not admit of a person to stand erect; it received light from a small window, the sash of which was fixed: two of the number lay ill of the fever, and the rest appeared *afraid* of the admission of pure air, having carefully closed up the broken panes of glass with plugs of old linen. The garret on the opposite side was occupied by a woman and her five children.

The writer had the painful opportunity of observing another instance of extreme indigence and distress in a house which he visited in St Ann's Street, Sandgate; the filthy and offensive state of three dark unventilated apartments, occupied by ten persons, was shocking, having pigs under the same roof, and a certain convenience on the stairs. In a garret, which received a faint light from a patched sky-light, he observed a young woman of



ghastly appearance languishing on a bed of straw, with scarcely any covering; this poor wretch had survived an attack of fever, but remained in the most feeble and dejected state, destitute of the means of support; the same bed contained her sister, and a sick lodger, all incapable of pursuing their usual employment, which had been in selling fruit and oysters. In this state of misery their clothes, bedding, and every little thing they might have possessed before, was now exchanged for temporary existence.

Under the above circumstances, it is not at all surprising that infectious fevers are so frequently *generated* and *preserved* in those close, filthy, unventilated mansions of the poor; and, when once the contagion is disseminated amongst them, the unfavourable circumstances of poverty conspire to increase its influence, and will frequently find access into the families of the more respectable orders of society, by casual intercourse, even at a considerable distance,—as it is universally known that clothes, furniture, &c. will retain infection for a great length of time.

Frequent observation informs us how readily infectious fevers may be communicated by casual  
intercourse,



intercourse, which may arise from infected persons frequenting public-houses, particularly by the very lowest orders of society, who are commonly employed in selling oysters, mutton pyes, fruit, &c. also by visiting retail shops, or disposing of infected clothes to the different pawnbrokers, which the necessitous sick are too frequently obliged to have recourse to for temporary relief.

Servants or others visiting their sick friends may receive the infection, and be the means of introducing it into the families of the middle and higher classes of society. There are, besides, various other channels by which the subtile particles of contagious matter may be conveyed, and which evince the practicability of the disease appearing in the different situations of the town and neighbourhood, without being influenced by any positive and *general* state of the air, as represented by a medical author of *imaginary penetration*.

The dispositions of persons have been observed to be extremely opposite in receiving and resisting infection, as will appear from the frequent instances where a man has slept with another affected with the plague, or any other contagious disease, without receiving any infection himself. From  
such



such circumstances, a *few* of the profession have doubted, and even denied, the existence of contagion; in many diseases which, however, experience has frequently proved to the contrary.

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#### FACTS RESPECTING CONTAGION.

THE nature of contagion has been very clearly described by Dr Clark, of this town, in the following words:—

“By contagion is meant poisonous effluvia or matter arising from the bodies of persons under certain distempers, which communicate the same disease to others who come near to them, or near to substances imbued with matter, with sweat, and other excretions of the deceased. And it has been observed, that substances so imbued, impart a more virulent and concentrated contagion than that arising from the effluvia of the sick,

“It is ascertained that the atmosphere, at a very limited distance from the source of contagion, never becomes infectious; and then even infectious



tious effluvia, whether issuing from the body of the patient, or from substances imbued with matter or morbid excretions, are, by dilution with the common air, rendered inert.

“ This important fact has been ascertained in the plague by Dr M’Kenzie, Rev. Mr Dawes, Dr Russell, and Mr Howard; and Dr Haygarth has incontestably proved, that by dilution with the air, the contagious effluvia of the small-pox becomes innoxious at less than three feet distance from a patient loaded with pustules.

“ When many persons are crowded together, labouring under infectious diseases, and a total disregard to cleanliness and ventilation has taken place, not only linen and clothes receive the taint, but even the furniture and the apartments themselves become contaminated. Numerous instances of this happen in jails, hospitals, and poor-houses, and in the habitations of the indigent.

“ Some contagions are of a specific nature, and can only be propagated by their own particular infection. Of this kind are the small-pox, the measles, the scarlet fever, the plague, and the  
hooping



hooping cough. Of all these diseases, the plague only seizes a person more than once in his life.

“ If the former diseases be expelled from a kingdom, proper regulations will prevent their being again introduced ; for they cannot be propagated but by their own respective poisons.

“ But the contagion of fever is of a quite different nature, and it arises spontaneously from a concurrence of various circumstances.

“ When a person is taken ill of any feverish complaint, suppose a simple remittent or cold, and neglects cleanliness, is despondent, and has no supplies of fresh air, a virulent degree of infection is often produced.

“ If confined to the murky air of a jail, hospital, or ship, the most malignant fever will be produced ; and if to a crowded apartment, as happens in the families of the poor, a contagious fever will be generated, only differing from the jail, hospital, or ship fever, in degree.”

The preceding observations clearly explain the nature and influence of contagion.



## THE ORIGIN AND NATURE OF FEVER.

THE causes and quality of the fever lately prevalent in this town and Gateshead, which occasioned the most serious alarm, in consequence of the many sudden and fatal terminations attending it, have not yet been sufficiently explained, although *attempted*. The disease *evidently* appears, from observations made with considerable care and attention in the regimental Hospital of the Staffordshire militia, and in the habitations of the infected poor, to have been generated in the confined and crowded lodgings of the indigent, independent of any peculiar state of the air, and extended by contagion, which was communicated to many respectable inhabitants of the town by accidental intercourse with the infected.

The fever prevailed with greater malignancy in the neighbourhood of the Quayside. The daily resort of commercial gentlemen into that quarter of the town exposed several to the influence of contagion, as appears from the *only* persons of respectability seized with fever having been in the habit of transacting business on the Quay every day.



A poor girl, of the name of Scott, affords an important instance of the generation and dissemination of contagious matter. This unfortunate female, in the early part of September, was seized with a complaint of the bowels, supposed to have been occasioned by eating large quantities of apples when in the employment of a fruiterer; her indisposition became more serious, and at length confined her to a wretched lodging in Sandgate. Deprived, by sickness, of the ordinary means of support, her strength became greatly exhausted, and her mind despondent, succeeded by low fever, which eventually yielded to the unaided efforts of Nature under the most unfavourable circumstances,—wanting medical assistance, and depending on the humanity of her neighbours for support, if an occasional basin of tea may be considered as such, which was the only nourishment she received during the time of her illness. Thus reduced to extreme misery, by the ravaging hand of disease and poverty, this wretched object was impelled to crawl abroad and solicit alms, after being discharged from her contaminated apartment for want of being able to pay the rent. With enfeebled frame, ghastly countenance, filthy person, and in clothes ragged and loathsome (which had been worn from the commencement of her illness), she wandered daily



daily from Sandgate to the Sandhill, imparting the most virulent contagion to the persons she had intercourse with.

Mrs H——, a fruiterer on the Quay, took compassion on her, and ordered a basin of soup to be given her every day, at the warehouse. In consequence of this interview, Mrs H—— received the infection, which was also communicated to two of her sons,—all of whom escaped severe attack of fever with great difficulty. A friend of Mrs H——'s, exposed to infection at the same time, was seized with symptoms of malignant fever on the following morning, which proved fatal in a few days.

After this poor girl had gained a little strength, she was employed, with several other labourers, in delivering a cargo of fruit; four of whom she imparted contagion to,—two died.

Many of the labourers complained of the most offensive effluvia arising from her person and clothes, which occasioned her being discharged from this employment. She afterwards went about selling oysters; and there is every reason to conclude that she introduced contagion into several



public-houses during the time of opening oysters,—as the surviving persons seized with fever recollect being very near to this girl, and affected by an offensive smell, which occasioned a sudden pain of the head and giddiness, succeeded by anxiety, restlessness during the night, and, on the following morning, more apparent symptoms of malignant fever.

Miss F——, the daughter of an innkeeper on the Quay, was seized with fever on the 18th of October, supposed to have caught infection from Scott, having had intercourse with this poor wretch the preceding evening. Symptoms of great malignancy appeared early in the disease, which she communicated to the nurse: Two other attendants also received the contagion successively, which proved fatal to the three last persons. Miss F—— recovered with extreme difficulty.—A Mr T——, commercial clerk, caught infection from the same quarter, which he communicated to his wife, both of whom died, leaving eight unfortunate orphans. Mr W——, a friend and attendant on Mrs T——, was seized with fever, which likewise terminated fatally.

Mr



Mr L——, son to an innkeeper in Grindon-chare, caught the infection from Scott on the 19th of October, which proved fatal. Several persons received contagion at this house,—in particular a labouring man of the name of Etherington, who died of the disease, and left eight distressed orphans, three of whom experienced an attack of fever, but have survived.

William Sinton, a labouring man, caught the infection in visiting Etherington during his illness; he likewise died, and communicated contagion to two other persons living in the same house, in Black-Boy-chare. The two latter were suddenly seized with a violent pain of the head, giddiness, sickness, tremors, and prostration of strength whilst attempting to restrain the efforts of Sinton in a fit of delirium.

About the same period, contagion was introduced into the Dun-Cow and Beevor public-houses, in Grindon-chare, which proved fatal to several of the military quartered there. In the latter house, the master, mistress, two children, a soldier's wife, and three soldiers, lay ill of fever at the same time.

Thomas



Thomas Kindlish, a poor blind man, in the habit of playing on the violin at the different public-houses about the Quay, was seized with infectious fever on the 26th of October, which he communicated to his mother, brother, and two sisters.—There were nine in this family crowded together in a miserable unventilated apartment, in Blue-Anchor-chare, five of whom were affected with fever at the same time.

The frequent appearance and rapid progress of infectious fevers in Newcastle will not appear in the least extraordinary, when the various circumstances favourable to the diffusion of contagion are considered.

The preceding facts attending the late fever, the writer carefully minuted at the houses of the infected; many more are in his possession, which do not require stating, as every intelligent person must feel convinced of the *origin* and *nature* of an alarming disease which at all times prevails more or less in the crowded and unventilated lodgings of the *poor*. It is not peculiar to season or climate, although it appears more frequent in winter than in summer, and becomes considerably more active in states of the air connected with cold and moisture.

Fortunately,



Fortunately, however, the progress of infectious fevers may at all times be checked by proper attention to cleanliness, ventilation, &c. : The convincing and powerful effect of those simple regulations, in immediately arresting, and eventually in subduing, the most virulent *febrile* contagion, has been repeatedly experienced in private families, houses of charity, jails, and on board of ships.

Many very incongruous conjectures have been made as to the cause of the fever lately prevalent in this town : Several philosophic minds considered a certain *something* floating in the atmosphere as productive of this disease ; others would have that contagion was imported from America, or brought by a regiment of militia. At length a medical gentleman, prompted by the *silence of the profession* on the subject, *attempted* an explanation of the "*origin and nature of the fever*" as follows :—  
 "To what cause or causes then is the origin of the fever which lately appeared in this town to be attributed ? That particular state of the weather which commonly prevails at this season produces more or less of debility, and lays a general foundation for fever ; at the same time, unless other causes conspire, fever does not take place : For, although all are exposed more or less to the weather,  
 yet



yet comparatively few are ever affected with fever. The present fever, then, does not appear to have been alone the effect of the weather; fatigue with great exertion, and local causes, have been combined with the state of the weather to produce it, and made, perhaps, the effects of cold with rain, or wet clothes, more sensibly felt. But there is another cause producing a tendency to fever, and that is intemperance in the use of spirituous liquors.—Thus any debilitating effects of the air, added to intemperance, are fully as great as when added to fatigue with great exertion: It is not by debility alone that intemperance lays the foundation of fever, but also by affecting the state of the blood.”

This *ingenious* physician, after various other fanciful causes of infectious fever, observes,—“The only danger, then, that remains is, at least, no more than in former years, and this is from contagion; and this danger appears to me to be *very small* in the *present fever*, it being less of a putrid nature than any I have seen for many years,”

It is unnecessary to make any observations on the opinion of the above professional gentleman, whose labouring imagination might have been spared, had he bestowed but half the attention on the  
actual



actual appearance and progress of the fever, which in many families has left a melancholy *memento* of its destructive effects.

The disease proved particularly fatal to the heads of families, as appears from the list of orphans (50 in number) left in the course of one week in October.

The following respectable inhabitants of Newcastle and Gateshead fell victims to typhus fever during the months of October and November, 1803.

<i>Name.</i>	<i>Profession.</i>	<i>Residence.</i>	<i>Office.</i>
Mr H. . .	Merchant	Sandhill	
Mr H. . .	Ditto	Newgate-street	Quayside
Mr S. . .	Slop-seller	Sandhill	
Mr L. . .	Wharfinger	Westgate-street	Quayside
Mr G. . .	Land-surveyor	Ditto	Ditto
Mr T. . .	Commercial-cl.	Pandon-street	Sandhill
Mr T. and wife	Ditto	Pandon-bank	Quayside
Mr B. . .	Ditto	Gateshead	Sandhill
Mr R. . .	Municipal ditto	Dean-street	Ditto
Mr C. . .	Fruiterer	Grindon-chare	Quayside
Mr B. . .	Boat-builder	Gateshead	
Mr A. . .	Block-maker	North-shore	
Mr G. . .	Cabinet-maker	Bigg-market	
Mr P. . .	House-carpenter	Percy-street	



<i>Name.</i>	<i>Profession.</i>	<i>Residence.</i>	<i>Office.</i>
Mr C. . .	Bricklayer	Manor-chare	
Mr M. . .	Plumber and Glazier	Pilgrim-street	
Mr C. . .	Organist	Albion-street	
Mr —. and wife	Pawnbroker	Dog-bank	
Mr G. . .	Butcher	Westgate-street	
Mr D. . .	Schoolmaster	Trinity-house	Broad-chare
Mr L.'s son .	Innkeeper	Grindon-chare	
Mr O.'s daugh- ter . . .	Ditto	Quayside	
Mr M. . .	Ditto	Cowgate	
Mrs F. . .	Ditto	Quayside	
Mrs W. . .	Ditto	Ditto	

Considerations of a delicate nature prevent the writer from stating several important facts attending the above unfortunate persons, whose late professional duties and habits particularly exposed them to the influence of febrile contagion.

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#### CONTAGIOUS FEVER, AS IT APPEARED AMONGST THE MILITARY.

THE prevalence of typhus fever in the regiment of militia quartered in Newcastle having afforded the writer an extensive opportunity of observing the nature and progress of the disease, as it appeared

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ed in the several patients admitted into the regimental hospital, the correctness of the following statement may therefore be relied on.

On the 4th of October, 1803, the second battalion of the Staffordshire regiment of militia arrived at Newcastle. From that period until the 19th October *not one* single fever case appeared on the sick report. From the 19th October to the 22d November there appeared *sixty-five* cases of typhus fever, *three* of which terminated in death. From the 22d November to the 22d January, 1804, *twenty-nine* cases appeared, *three* of which proved fatal; making in all ninety-four cases of fever, and eight deaths.

The following is a return of fever patients admitted into the regimental hospital from the 19th October, 1803, to the 22d January, 1804,

<i>Name.</i>	<i>Date of Admission, and Issue of the Disease.</i>		<i>Quarters, &amp;c.</i>
1 J. Reade	Oct. 19	Recovered	Rewcastle-chare
2 F. Ashly	ditto 26	ditto	Grindon-chare
3 J. Nichols	ditto	Died 31st Oct.	ditto
4 C. Gilbert	ditto	Recovered	ditto
5 S. Phillips	ditto	ditto	ditto
6 E. Williams	ditto	ditto	North-shore
7 J. Anderson	ditto	Died 27th Oct.	Grindon-chare
8 Wm Coxon	ditto 31	Recovered	ditto



<i>Name.</i>	<i>Date of Admission, and Issue of the Disease.</i>		<i>Quarters, &amp;c.</i>
9 J. Flint	Oct. 31	Recovered	Grindon-chare
10 Wm Stanley	Nov. 2	ditto	Pilgrim-street
11 J. Osborn	ditto	ditto	Flesh-market
12 T. Lycitt	ditto	ditto	Plummer-chare
13 Wm Simms	ditto	ditto	North Battery
14 J. Avery	ditto 3	ditto	Castle-garth
15 J. Woodward	ditto	ditto	North Battery
16 J. Cartwright	ditto	Died 19th Nov.	Grindon-chare
17 H. Whitaker	ditto 4	Recovered	ditto
18 T. Ball	ditto	ditto	Plummer-chare
19 J. Shovelbot- tom	ditto 5	ditto	Castle-garth
20 J. Steel	ditto 6	ditto	ditto
21 J. Jackson	ditto 7	ditto	Rewcastle-chare
22 T. Clulow	ditto	ditto	ditto
23 T. Shacker	ditto 10	ditto	Close
24 H. Steen	ditto 17	ditto	Quayside
25 B. Jackson	ditto 23	ditto	ditto
26 T. Roberts	ditto	Died 28th Nov.	Sandgate
27 J. Phillips	ditto	Recovered	Quayside
28 T. Millward	ditto 26	ditto	ditto
29 T. Alcock	ditto	Died 28th Nov.	Hospital attendant
30 T. Helwich	ditto	ditto 2d Dec.	Blue-anchor-chare
31 J. Jones	ditto	Recovered	Plummer-chare
32 J. Oakley	ditto 29	ditto	Quayside
33 Wm Hyde	ditto	ditto	Castle-garth
34 J. Nevil	Dec. 1	ditto	Quayside
35 J. Skelton	ditto	ditto	ditto
36 Wm Dewey	ditto 2	ditto	Castle-garth
37 J. Madely	ditto 3	ditto	ditto
38 C. Proffit	ditto 5	ditto	Venereal patient in the hospital
39 G. Taylor	ditto	ditto	Hospital attendant
40 J. Ridgeway	ditto 7	ditto	Castle-garth



<i>Name.</i>	<i>Date of Admission, and Issue of the Disease.</i>		<i>Quarters, &amp;c.</i>
41 J. Jones	Dec. 7.	Recovered	Plummer-chare
42 T. Walton	ditto	ditto	ditto
43 E. Felton	ditto 8	ditto	ditto
44 —. Hodgkins	ditto	ditto	Hospital serjeant
45 —. Hodgkins	ditto	Died 11th Dec.	ditto nurse
46 L. Turner	ditto 21	Recovered	Sandgate
47 J. Godwin	ditto	ditto	ditto
48 Wm Gough	ditto	ditto	Plummer-chare
49 Wm Brant	ditto 30	ditto	Castle-garth
50 T. Turner	Jan. 3,		
	1804	Died 14th Jan.	ditto
51 E. Freeman	ditto 15	ditto	Butcher-bank
52 Wm Scott	ditto 17	ditto	ditto

### *Observations.*

In addition to the above return, 42 fever patients were attended at their respective quarters.

The men whose names are marked No. 1, 21, 22 (previous to their admission into the hospital), were at a private lodging in Rewcastle-chare, kept by a poor woman of the name of Robinson. A female lodger at the same house was taken ill of fever in the early part of October, and communicated infection to No. 1.

2, 3, 4, 5, 7, 8, 16, were quartered at the Dun-Cow public-house, in Grindon-chare. Fever prevailed



vailed in feveral houfes in the lane at the time, and was introduced into this houfe by an oyfter girl.

9, 17, were quartered at the Beaver public-houfe, in Grindon-chare. The family were feized with fever previous to the foldiers' taking it.

13, 15, lodged together in a wretched apartment in the North Battery. One of the family died of fever in October.

12, 18, 31, 41, 42, 43, 48, were quartered at the Ship public-houfe, in Plummer-chare. A young woman, of the name of Rye, had the fever, and fleep in a bed which was afterwards appropriated to the ufe of the foldiers.

14, 19, 20, 33, 36, 37, 40, 49, 50, lodged at three different houfes in the Castle-garth: In two of them the family were firft affected with fever.

24, 35, 27, 28, 32, 34, 35, at private lodging-houfes about the Quayfide, during the prevalence of fever in that quarter.

26, 46, 47, lodged at a miferable houfe in Sandgate. Three other lodgers were affected with fever at the fame time.



30 had a private lodging in Blue-Anchor-chare. A girl of the name of Stewart died of fever in October, at the same house.

29, 38, 44, 45, received infection at the hospital.

On examining the return of fever patients, and comparing the observations, the source of infection in most cases may be distinctly traced,—at least, the disease will evidently appear to have been generated in those filthy and crowded lodgings which many of the military got into. During the time of the fair in October, several of the publicans, finding it inconvenient to accommodate soldiers at their own houses, allowed each man a certain sum of money weekly to provide himself with lodgings, many of whom made improper use of the money, and were then obliged to put up with wretched apartments.

It is necessary to observe, that this corps was but lately embodied, and its members composed chiefly of mechanics from the large manufacturing towns in Staffordshire and Warwickshire. Having lately been exposed to the extremes of heat at the forges and potteries, many of them became more sensible to the effects of cold and moisture in  
the



the northern district, several having complained of colds after the first wet weather in October,—which, in crowded lodgings, and from neglect of cleanliness, might produce a virulent degree of infection.

*The following cases of contagious fever, attended with favourable and fatal issue, are selected in order to exhibit the varieties of the same disease as it appeared amongst the soldiers.*

October 19th, 1803.—James Reade, a stout and healthy man, aged 19 years, was attacked in the morning with violent head-ach, giddiness, nausea, and severe pains of the limbs and joints, succeeded by interchanges of heat and cold, restlessness, anxiety, and depression of strength, the pulse quick, tongue white and tremulous: He took a dose of antimonial powder and calomel, which occasioned two or three evacuations from the intestines; and opiate was administered at bed time.

20th.—Passed a very restless night; febrile symptoms appear considerably aggravated; the pulse quick and energetic; countenance flushed; the



the eyes much inflamed, and of an inebriated appearance; skin very hot; respiration somewhat difficult, attended with a frequent cough and oppression at the region of the stomach; tremors of the hands, and convulsive motion in the muscles of the face: Small doses of antimonial powder and calomel were prescribed every four hours, with saline mixture, and a large blister applied to the chest. In the evening he appeared somewhat relieved, having passed several evacuations, and perspired very freely.

21<sup>st</sup>.—Rested very indifferently, but appears somewhat better this morning; the pulse quick; skin moist; tongue brown and parched; eyes red and glossy; countenance confused; depression of strength and spirits more evident: A strong decoction of bark was prescribed, with port wine and water, occasionally. The blister has risen extremely well.

22<sup>d</sup>.—Sleep disturbed during the night, with sudden startings and mournful breathings; perspires very profusely; tremors of the hands more considerable; the pulse quick and feeble; tongue covered with black slimy matter; thirst increased; complains of great pain in the calves of the legs; the



eyes appear greatly suffused, and the countenance despondent; affected with flatulency and hiccup. A mixture of bark and port wine was ordered to be given him every second hour, with occasional doses of æther and tincture of opium.

23d.—Appearances improved, but complains of uneasiness of the stomach; bowels rather costive; he took a dose of calomel and antimonial powder in the morning, which occasioned two or three evacuations, and relieved the stomach. Continues the mixture of bark and wine.

24th.—No apparent alteration since yesterday; the medicine and wine are continued as before.

25th.—Rested rather better; symptoms appear generally relieved; the pulse continues quick, and is much stronger; the tongue in several places is extremely florid, and the papillæ elevated; the mucus appears separating. Bark and wine continued.

26th.—Appears still better; complains of great soreness of the tongue; the mucus continues separating, and is easily removed. Takes the bark and wine as before.

28th.



28th.—Countenance considerably improved ; complains only of being very weak ; takes nourishment with great avidity, but is with difficulty prevailed to continue the bark. From this time he continued to recover strength daily, and was discharged from the hospital on the 10th of November.

October 26th.—John Nichols, a stout and healthy man, aged 21 years, was attacked in the morning (having been indisposed for some days before) with severe vomiting, violent head ach, giddiness, pains of the limbs and joints, tremors of the hands, and oppression in breathing ; the pulse was quick, strong, and irregular ; the eyes suffused ; countenance flushed, and of an intoxicated appearance ; the tongue brown, furred, and tremulous ; skin hot and dry ; thirst considerable. The vomiting was allayed after taking two or three doses of calomel and opium, which procured two copious evacuations. In the evening febrile symptoms were somewhat relieved ; small doses of antimonial powder and saline mixture were ordered to be administered every second hour during the night.

22d.—Was extremely restless in the night, and at times delirious ; the pulse quick, but diminished



in force; eyes wild and staring; countenance dejected; tremors of the hands increased; the tongue and teeth covered with a brown tenacious matter; stomach extremely irritable; affected with troublesome hiccup and flatulency; respiration difficult; complains most severely of pain of the head and calves of the legs; strength greatly depressed. Takes small doses of calomel and antimonial powder, with camphorated mixture. A blister was applied to the region of the stomach.

23d.—Passed a very restless night; febrile symptoms somewhat mitigated, but the countenance appears more despondent; the strength and intellect materially impaired. Takes a strong decoction of bark, with the compound tincture and port wine, every second hour.

24th.—Appears severely affected with pain; inward restlessness and anxiety; the pulse quick, small, and irregular; the tongue brown and parched; skin hot and dry; tremors of the hands and sensibility to cool air increased. Continues the bark infusion as before, with a greater proportion of wine.

25th, 26th, and 27th.—Symptoms have continued with very little alteration; strength gradually failing.



failing. Takes a mixture of bark, with wine, every second hour.

*28th.*—Appearances much altered for the worse; the eyes dull and sunk; countenance livid and ghastly; affected with constant hiccup, twitching of the tendons, and spasms in the muscles of the face; the abdomen much swelled, and the extremities bespotted with petechiæ. Refuses the medicine, but will take wine.

*29th.*—Was in a comatose state all night; the pulse quick and feeble; the abdomen remains greatly distended and painful, on slight pressure; foetid evacuations pass off involuntarily; urine scanty, and extremely high coloured. In this state he continued until the 31st; in the afternoon the pulse became obscure, succeeded by repeated convulsive efforts, terminating in death.

*October 26th.*—James Anderson, a delicate man, aged 22 years, has been affected with fever two or three days, and was this morning brought to the hospital, from quarters in Grindon-chare. Severe pains affect the head and limbs, accompanied with tremors of the hands, twitchings of the tendons, and difficulty of breathing; the pulse frequent and feeble;



ble; tongue covered with a brown pellicle, extending to the teeth and gums; eye and countenance of desponding and ghastly aspect; the skin of a moderate degree of heat, moist and clammy; senses much confused; the bowels costive, with considerable fulness, tension, and inflation of the hypochondria; urine scanty, and extremely high coloured. He took a dose of calomel and antimonial powder in the morning, which operated by stool; a blister was applied to the chest, and a dose of camphorated and saline mixture prescribed every second hour.

27th.—Appearances continue alarming; coma and subfultus tendinum increased; muscles of the face and chest convulsed; the abdomen greatly swelled, tense and painful on pressure; stools involuntary, small, watery, and extremely offensive; affected with flatulency and hiccup; heat of the extremities reduced; several livid spots appear on different parts of the body; the pulse quick, small, and irregular; voice inarticulate. In the afternoon the powers of life gradually diminished, succeeded by several slight convulsions, terminating in death.—Putrefactions came on very rapidly; the corpse in a few hours became extremely offensive, which obliged its being immediately interred.



*October 31<sup>st</sup>.*—William Coxon, a stout and healthy man, aged 22 years, was attacked in the morning with shivering, violent head-ach, giddiness, nausea, tremors of the hands, pains of the limbs and joints, accompanied with troublesome cough, difficulty of breathing, and great prostration of strength; the pulse quick, strong, and irregular; tongue white and tremulous; the eyes greatly suffused; countenance flushed, and of vacant aspect; skin hot and dry; bowels costive. He took a dose of calomel and antimonial powder every second hour until the bowels were opened; in the evening febrile symptoms appeared somewhat relieved.

*November 1<sup>st</sup>.*—Was extremely restless during the night, and at times affected with delirium; the pulse continues quick and strong; countenance very much flushed, and the eyes inflamed, prominent, and of an intoxicated appearance; tremors of the hands increased, with general irritability and greater depression of strength; complains severely of head-ach and pain in the calves of the legs; the skin continues hot and dry; the tongue brown and parched, with considerable thirst, difficulty of breathing, and troublesome cough. A blister was applied between the shoulders, and a dose of antimonial powder, with saline mixture, prescribed  
every



every two hours. In the afternoon a considerable hæmorrhage from the nose took place, attended with abatement of action in the vascular system; towards evening he fell into a profuse perspiration, and febrile symptoms appeared generally relieved.

2d.—Rested indifferently; in the morning the pulse was frequent and small; tongue covered with a brown tenacious matter; the eyes remain suffused, but countenance less flushed; tremors of the hands continue, with frequent contractions in the muscles of the face; strength and intellect appear greatly impaired, with frequent startings and mournful breathings; head-ach and pain of the limbs continue; several small florid eruptions about the neck, breast, and thighs. Takes a strong decoction of bark, with port wine, every second hour.

3d.—Passed a very restless night. In the morning the pulse frequent and feeble; tongue covered with a black pellicle, extending to the teeth and gums; the eyes red and watery; countenance dark and inanimate; the skin of a moderate degree of heat, moist, and clammy; affected with sudden startings, twitchings of the tendons, and mournful breathing. Takes a mixture of bark and port wine every second hour.



4th.—Had some rest in the night; the pulse quick and strong; countenance appears more cheerful, and the mind less disturbed; at times affected with mild delirium. Mixture of bark and wine continued as before.

5th.—Has had several hours of sound sleep; the pulse continues quick and strong; eyes lively, and the cheeks extremely florid. Takes the bark and wine as before.

6th.—Appearances much improved; complains of deafness, and seeing objects double; the eruptions on the breast and thighs disappeared.

7th.—Continues better; the crust appears separating from the tongue. Medicines and wine as before.

8th.—No material alteration since yesterday. Continues taking the bark and wine.

9th.—Feels himself greatly better; countenance very much improved; the crust has separated from the tongue, and attended with great soreness. From this time he continued to recover gradually,

E

and



and on the 30th was discharged from the hospital cured.

*November 3d.*—Jonathan Cartwright, a stout and healthy man, aged 26 years, has been affected with head-ach, nausea, want of appetite, langour and restlessness for the last three or four days, without making any complaint until this morning; the pain of the head became extremely severe, accompanied with giddiness, pains of the limbs and joints, difficulty of breathing, tremors of the hands, profuse perspirations, and great prostration of strength; the pulse quick, small, and weak; tongue florid, dry, and parched; the eyes much suffused; countenance flushed, and of desponding aspect; senses much impaired. Small doses of calomel and antimonial powder were prescribed every three hours, and a blister applied to the chest.

*4th.*—Passed a very restless night; febrile symptoms are considerably aggravated, and attended with frequent and violent fits of delirium. Continues taking doses of calomel and antimonial powder, with camphorated mixture.

*5th.*—Continues extremely ill; the pulse frequent and feeble; tongue covered with a black pellicle;



pellicle; the eyes greatly suffused; countenance dejected; the skin of a moderate degree of heat, moist, and clammy; thirst inconsiderable. Takes a decoction of bark every second hour, with port wine occasionally.

6th.—Sleep disturbed by dreams and wanderings; sensibility to cool air increased; affected with heavy breathing, and frequent convulsions. The decoction of bark and wine continued as yesterday.

7th.—Appearances still more unfavourable. Refuses taking the bark, but is continually craving for wine or porter.

8th.—The countenance appears still more dejected, with stupor, twitchings of the tendons, hiccup, frequent and involuntary evacuations; fulness, tension, and inflation of the hypochondria; the skin bespotted with petechiæ; urine scanty, high coloured, and offensive.

9th.—No material alteration since yesterday.

10th.—The eyes appear more lively, and the countenance less dejected; the pulse very frequent,



and somewhat stronger. Continues obstinately to refuse taking the bark, but drinks the wine with great eagerness.

11th.—Appears much the same as yesterday, except being evidently weaker, and disposed to faint on the least motion. Takes a bottle of port wine every twelve hours.

12th.—Continues extremely low and weak; affected with twitchings of the tendons, and slight convulsions; hiccup increased; the pulse frequent and feeble; the skin in many places discoloured with large livid spots on the extremities. Stools pass off involuntarily, and are extremely offensive. Blood is discharged from the nose frequently.—From this time, until the 18th, the powers of life continued gradually exhausting; the pulse became obscure; voice inarticulate; extremities cold; eyes sunk and dim; countenance ghastly; with mutterings, twitchings of the tendons, and picking at the bed-clothes, prolonged until an early hour of the following morning he expired.—The body emitted a very cadaverous smell several hours previous to death taking place; immediately after death the abdomen became greatly inflated, and the corpse extremely putrid.

November



*November 26th.*—Thomas Alcock (attendant on the sick at the hospital), a stout and healthy man, aged 19 years, was attacked in the morning with violent head-ach, giddiness, nausea, and rigors, accompanied with severe pain of the limbs and joints, tremors of the hands, difficulty of breathing, depression of mind, and great prostration of strength; the pulse quick, strong, and irregular; tongue dry and parched; the eyes very much suffused; cheeks flushed, and the countenance of an intoxicated look. He took two doses of calomel and antimonial powder, which occasioned an evacuation from the bowels. In the evening the violence of febrile symptoms appeared somewhat relaxed.

*27th.*—Passed a very restless night; febrile symptoms aggravated in degree, and attended with strong delirium, and twitchings of the tendons; perspires very profusely, and is affected with hiccup. Takes small doses of antimonial powder, with saline and camphorated mixture.

*28th.*—Stupor and convulsions have come on, accompanied with twitchings of the tendons, picking at the bed-clothes, coldness of the extremities, and involuntary evacuations of urine and fæces;  
skin



skin moist and clammy; the pulse frequent and feeble; tongue covered with a black pellicle, extending to the teeth and gums; breath extremely offensive. The powers of life continued gradually failing until the evening, when he expired.

*November 26th.*—John Jones, of a delicate constitution, aged 22 years, was attacked with head-ach, giddiness, pain of the limbs, tremors of the hands, great languor and prostration of strength, senses considerably impaired; the pulse quick and small; tongue white and tremulous; the eyes suffused; cheeks flushed; skin of a moderate degree of heat; thirst inconsiderable. A dose of calomel and antimonial powder was administered in the morning, and an opiate at bed-time.

*27th.*—Sleep disturbed by dreams and wanderings; the pulse frequent and feeble; tongue brown and parched; depression of strength and mind increased, with heavy breathing and deep sighing; aspect of the eye and countenance sad and desponding; limbs bespotted with petechiæ. Takes a mixture of bark and a glass of port wine every second hour.

*28th.*—Rested very indifferently; the pulse quick and somewhat stronger; affected with stupor, twitchings



twitchings of the tendons, and oppression in breathing; tremors of the hands, and sensibility to cool air increased. Takes the mixture of bark and wine every hour.

29th.—Appears somewhat better; the pulse frequent and rather strong; complains of severe pains in the calves of the legs. Continues the mixture and wine as yesterday.

30th.—Had some rest in the night; aspect of the eye and countenance much improved; senses less confused, except at intervals; affected with mild delirium; the pulse quick, strong, and elastic. Mixture and wine continued as before.

31st.—Continues better; the pellicle appears separating from the tongue. Takes the mixture and wine every second hour.

December 1st.—Appearances continue favorable; the urine deposits a mucus sediment; the tongue gets cleaner, but is extremely sore. From this time he continued to gain strength daily, and was discharged from the hospital on the 10th cured.

November 29th.—William Hyde, a stout and healthy man, aged 28 years; has been drooping  
for



for several days, without applying for relief until this morning, when he was admitted into the hospital. The pulse frequent and feeble; tongue brown and parched; the eyes suffused; countenance flushed, and of an intoxicated appearance; strength greatly exhausted, and the mind despondent, accompanied with severe head-ach, nausea, giddiness, aching pain of the limbs, extreme sensibility to cool air, and irritated action in the system; skin of a moderate degree of heat; thirst inconsiderable. A dose of calomel and antimonial powder was administered in the morning, which operated by stool. In the afternoon he began to take a strong decoction of bark.

30th.—Passed a very restless night; the pulse frequent and feeble; senses greatly impaired, affected with stupor, startings, and partial convulsions; the countenance grim and dejected; extremities bespotted with petechiæ. Takes a mixture of bark every second hour, and a glass of port wine every hour. In the evening his countenance appeared somewhat improved, and the pulse beat rather stronger; an opiate was given at bed-time, and the mixture and wine ordered to be given him at every favorable opportunity during the night.

*December*



*December 1st.*—Rested indifferently; took the medicine and wine regularly; the pulse quick and considerably stronger; the eyes and countenance more animated; intellect less disordered; perspires profusely. Continues the bark and wine as before.

*2d.*—Has had some rest; the pulse continues quick and strong; affected at intervals with delirium, attended with pleasing ideas. Takes the bark and wine as before.

*3d.*—No material alteration since yesterday, except the petechiæ having disappeared. Takes the bark and wine every second hour.

*4th.*—Advancing in recovery; the tongue appears a great deal cleaner. Bark and wine continued as usual.

*5th.*—Appearances still more improved. Continues the bark and wine regularly.

*6th.*—Acquires strength gradually; the tongue is perfectly clean, and evacuations regular; the urine deposits a mucus sediment. From this time his recovery became rapid, and he was discharged

F

from



from the hospital on the 14th cured. The bark and wine were continued during his convalescence.

*December 7th.*—Geo. Ridgeway, aged 30, was seized in the morning with violent head-ach, chilliness, sickness at stomach, and severe pains of the limbs, succeeded by intense heat, tremors, startings, and partial convulsions; the pulse quick, strong, and irregular; the eyes turgid and red; countenance flushed, and of a stupid and vacant aspect; senses very much impaired, and strength greatly depressed. The bowels were opened by calomel and antimonial powder, his feet immersed in warm water, and a dose of saline and camphorated mixture administered every two hours. In the evening febrile symptoms appeared considerably aggravated, with great commotion of the vascular system, which became suddenly relieved in consequence of a profuse hæmorrhage from the nose taking place; an opiate was administered at bedtime.

*8th.*—Affected with strong delirium during the night; the hæmorrhage from the nose recurred two or three times. In the morning the pulse was quick and small, attended with increased prostration of strength, and irritated action in the system.



A strong decoction of bark was prescribed every hour.

9th.—Appearances alarming; the pulse small and intermitting; the eye languid; countenance dejected; the lips livid; extremities cold, and bespotted with petechiæ; skin moist and clammy, with stupor and twitchings of the tendons. Takes a drachm of bark, and two ounces of port wine every hour. In the evening the pulse felt somewhat stronger, and the countenance appeared more animated. Bark and wine directed to be regularly administered during the night.

10th.—Has had some rest, and appears considerably better; the pulse quick, and much stronger; extremities warm, and the skin of a moderate degree of heat; tongue covered with a black crust. Takes the bark and wine as before.

11th.—Appears still better; affected with gentle delirium at intervals. Continues the medicine and wine regularly.

12th.—Slept tolerably well; the countenance appears much improved; the pulse quick, full, and strong; heat of the body increased; complains



chiefly of head-ach, and pain of the limbs. Takes the bark and wine every second hour.

13th.—Appears much the same as yesterday. Wine and bark continued as before.

14th.—Is much better; the crust is separating from the tongue. Bark and wine administered as usual.

18th.—Continues to recover; the tongue appears clean. Takes the mixture and wine four times a day. From this time he recovered strength daily, and was discharged from the hospital on the 30th cured.

### *Observations.*

In the above detailed cases of fever, it will appear that the symptoms differed materially in force and mode of action, either commencing with great violence, or flight in degree. The muscular powers of the body were invariably affected with tremors, startings, and partial convulsions, attended with increased or diminished action of the vascular system. The suffused appearance of the eye; flushed



flushed and intoxicated aspect of the countenance, were prominent and constant features of the disease. Affection of the organs of respiration, hæmorrhage from the nose, petechiæ, extreme sensibility to cool air, &c. attended the disease in many cases. The sudden appearance of a florid rash on the skin occurred in several patients, but was not attended with any apparent change in the progress of febrile symptoms; the head-ach, and aching pains of the limbs appeared the most distressful symptoms. The appearance of the eye and countenance afforded the medical observer the most correct idea of the progress and probable issue of the disease. The crisis (which generally took place on the 7th day) was marked by increasing strength, and expansion of the pulse; gentle delirium, attended with energetic expressions of lively ideas; the separation of lentous matter from the tongue; mucus sediment in the urine; return of appetite, and increased relish for wine; animated countenance, succeeded by gradual restoration of the impaired animal functions.

In the cases which terminated fatally (generally on the 5th and 11th day), there appeared an evident determination to some important organ; stupor, startings, and convulsions indicating great oppression



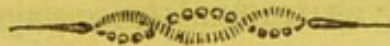
sion of the brain ; hiccup ; tension and inflation of the abdomen, painful on pressure ; involuntary and foetid stools ; some affection of the abdominal viscera.

The most successful treatment of fever cases admitted into the regimental hospital, appeared decidedly in favour of *bark* and *wine*, which seldom failed in subduing the disease, when early attended to. The sick were continually craving for wine, which was swallowed with the utmost avidity. Each dose appeared to excite the impaired energies of the system, under the depressing influence of malignant disease ; the pulse became stronger ; delirium, stupor, and convulsions relaxed ; the countenance became more animated, and the intellectual faculties collected. Even in cases of fever, attended with great action of the vascular system, and affection of the organs of respiration, the free exhibition of wine did not appear in the least to aggravate the disease.

The *illuminated Author* of "Plain Remarks on Fever," which lately appeared in Newcastle, attempted to depreciate the efficacy of bark and wine in that disorder ; but whether in direct opposition to the successful mode of treatment practised by a physician



physician of great eminence in Newcastle, or in compliment to the change of treatment which he “ventured on ten years ago,” and has since recommended with unsupported assurance, the writer pretends not to say.



GENERAL REMARKS ON INFECTIOUS FEVERS  
WHICH FREQUENTLY APPEAR IN  
NEWCASTLE.

“ Behold yon house that holds the parish poor,  
“ Whose walls of mud scarce bear the broken door !  
“ There, where the putrid vapours flagging play,  
“ And the dull wheel hums doleful thro’ the day.”

CRABBE.

To delineate the complicated scenes of wretchedness and misery met with in the solitary mansions of the indigent, requires more than ordinary ingenuity to avoid indelicacy. In Sandgate, the Castle-Garth, &c. there are numerous lodging-houses crowded with tinkers, pedlars, razor-grinders, china-menders, fortune-tellers, mendicants, &c. in which the various shades of aggravated indolence and penury exist.

Each



Each apartment, in general, contains four or five wretched beds, and seldom less than two or three persons sleep in each. The bed linen (if any) is rarely washed; the ordinary mode of cleaning it is by brushing and scrubbing.

“ Here on the matted flock, with dust o’erspread,  
 “ The drooping wretch reclines his languid head.”

One small patched up window faintly distinguishes night from day; if situation admits of the sun visiting the miserable den, its rays are then carefully precluded by an old mat or rug displayed before the window.

The heat of summer is attended with no inconsiderable commotion; millions of vermin leave their winter quarters; the hand of the industrious is involuntarily removed from ordinary exercise, and becomes the instrument of destruction and relief to an irritated skin. Columns of the most offensive effluvia arise from accumulated excretions, and the mutilated limbs of the mendicant, putrid rabbit skins, &c. &c. From this chaos, and want of ventilation, the confined air becomes virulently contaminated, and produces a contagious disease, to which the unfortunate inmates fall victims successively; the keen hand of poverty is then more  
 severely



feverely felt than ever. "Despised, neglected, left alone to die."

But the dangerous evil is seldom confined to its source; the clothes of the sick, or others not affected with the disease, but long exposed to an infected atmosphere, become highly impregnated with contagious matter, which is readily imparted to persons exposed to its influence during accidental communication; in the same manner infection is given from one person to another, until the disease finds access into the families of the more elevated classes of society, where it frequently proves fatal.

The ravages of a malignant fever are then spread abroad and exaggerated in the extreme, occasioning the most serious alarm throughout the town and neighbourhood, as was the case during the prevalence of the fever in Newcastle a few months ago. "*The bad fever*" was talked of in all the coffee-houses in London; post letters underwent fumigation; intercourse with the town was considered dangerous; many travellers left Newcastle out in their journey; and others, in confidence of some charm, ventured to gallop through the town, highly perfumed with camphor, musk, and frankincense. The

G

rumours



rumours even reached the Baltic, and ships from the port of Newcastle were obliged to perform quarantine. That a considerable degree of precaution was necessary, must be admitted; but “the dread of terrible diseases, and the natural fears of men, have magnified the danger of contagion beyond reality.”

The writer had an opportunity of observing the powerful operation of fear on a gentleman who accidentally called with him at the regimental hospital; he did not previously know the house, but on being told that it was “*the fever hospital*,” his colour instantly changed, he trembled, drew a camphor bag from his bosom, and ran the length of Northumberland-street without halting; the agitation of mind, and exertion in running, occasioned a sick head-ach, which he confidently believed to be an attack of the fever. On the family (where he lived) being informed of the circumstance, they also became alarmed; in consequence, a tea party was thrown into disorder, and abruptly dismissed.

The dread of contagious diseases appears to have made no inconsiderable impression on the minds of the antients. Procopius, in describing the plague which raged at Constantinople in the year 543, observes,



observes,—“ Apparitions of spirits, in all shapes human, were seen by many, who thought the man they met struck them in some part of the body; and so soon as they saw the spirit, they were seized with the disease. At first when they met them, they repeated divine names, and fled into churches to no purpose. Afterwards they were afraid to hear their friends call them, locking themselves up in their chambers, and stopping their ears. Some dreamed they saw such sights; others heard a voice tell them they were enrolled in the number appointed to die; but most, without warning, became feverish suddenly: Their bodies changed not colour, nor were hot, the fever being so remiss till evening, that neither the patient nor physician by his pulse could apprehend any danger.”

The frequent appearance of infectious fevers in all large and populous towns, is known to depend on a concurrence of domestic causes, originating amongst the poor inhabitants.

In Newcastle and Gateshead, the situation and description of houses inhabited by the indigent are in the greatest degree favourable to the production, preservation, and propagation of febrile contagious diseases. Eight or twelve persons crowded together



ther in a small unventilated apartment, where no attention is observed in cleanliness, and at the same time deprived of the ordinary necessities of life, cannot fail to produce a contaminated atmosphere, which may acquire an aggravated degree of virulence from many casual circumstances; in particular, *wet, disagreeable weather* has the effect of making poor people less attentive to cleanliness, and of inducing laziness and debility. The indisposition of an inmate, from cold, &c. if attended with neglect of cleanliness and despondency, frequently produces an infectious fever, which gradually extends through the whole house.

During the prevalence of fever, the complicated sufferings of the poor can hardly be conceived.

“ For him no hand the cordial cup applies,  
 “ Nor wipes the tear that stagnates in his eyes;  
 “ No friends with soft discourse his pain beguile,  
 “ Nor promise hope till sickness wears a smile.”

Successive deaths attend the melancholy progress of the disease; not unfrequently the father and mother of a numerous family are cut off, when the distressed orphans cry aloud for support, which the indigent neighbours are unable to give, and parochial pittance insufficient to relieve. But the evil seldom ends here; infection is communicated to  
 other



other families in the neighbourhood, whose humanity induced them to visit the sick.

Such are the sources in which the malady originates, and the situations in which it is generally found. There are various channels by which contagion is introduced into the habitations of the inferior tradesman, mechanic, &c. whose industry enables him to inhabit better apartments, and not unfrequently into the families of the middle and higher ranks of society.—“ In the neighbourhood,  
 “ where a fever subsists, some person belonging,  
 “ perhaps, to the family of a labourer or mechanic, from motives of humanity, visits and assists  
 “ the sick; in consequence of this, infection is  
 “ caught. The husband, after the disease is introduced, is often infected from attending his wife;  
 “ and if the family have but one apartment, few  
 “ escape the contagion. Poverty now presses hard  
 “ on such a family; and if they have any stock of  
 “ clothes or linen, they are gradually sold or  
 “ pawned for their immediate support, and the unfortunate family, though in comfortable circumstances previous to the attack of the calamity, is  
 “ soon reduced to a level with those originally in  
 “ great indigence. But the evil does not terminate here: The clothes and linen, sold or pawn-  
 “ ed,



“ ed, especially of those who die, are impregnated  
 “ with contagion, as well as the room; and ser-  
 “ vants who visit their friends or acquaintance  
 “ during the fever, and more particularly those  
 “ who buy articles of linen or apparel from pawn-  
 “ brokers, introduce the infection, without suspi-  
 “ cion, into the families of the affluent. Such un-  
 “ suspected mode of introducing contagion can sel-  
 “ dom be traced; but that they frequently operate  
 “ powerfully, cannot be doubted.”

The writer could adduce several melancholy in-  
 stances of the propagation of contagion by these  
 means; in particular, a pawnbroker lately living  
 in the Dog Bank, purchased some apparel the pro-  
 perty of a servant girl who died of infectious fever  
 in October last. He was soon after attacked with  
 the disease, as also his wife, both of whom died  
 and were interred in the same grave. Part of the  
 infected apparel was sold to a young woman in the  
 service of an innkeeper in Grindon Chare. She  
 was soon after taken ill of fever and died; four of  
 the family likewise received infection, and recover-  
 ed with great difficulty. Five or six respectable  
 persons, in the habit of visiting this house almost  
 every evening, were attacked with the disease,  
 which proved fatal to three of the number; and  
 there



there is every reason to believe that many more persons received infection from the same quarter.

“ Those who attend in retail shops, and the servants in public-houses, often receive the contagion from the indigent poor, who go to purchase articles as soon as they are able to crawl abroad, in the clothes they have worn during the distemper, and this will easily account for the frequency of fevers and other contagious diseases, amongst a class of inhabitants who would not otherwise be liable to them.”

It is now generally known that the persons and clothes of those who remain for any considerable length of time in a contagious atmosphere, and the excretions of the sick, are capable (even when conveyed to a great distance, or long preserved) of producing the same disease as an immediate intercourse with the sick themselves. Persons continuing in the apartments of the sick, for a long time, may communicate infection to others, although they experience no ill effect from such exposure. In this case, the bodies and clothes of those persons are impregnated with contagious matter, which is more readily imparted to others than from the sick themselves.

There



There are several circumstances that increase or diminish the influence of contagion. It is more readily communicated in a confined apartment than in the open air. A moist atmosphere is also more favourable to its propagation than a dry one; as appears from the plague ceasing in Syria and Egypt during the prevalence of certain drying winds, and its almost totally disappearing at Moscow during the dryness of the atmosphere. Persons under a depressed state of mind are the most susceptible of infection. Many instances have occurred of persons being attacked with infectious fever, when under the influence of fear and anxiety, which operated so strongly on their minds that the fatal event of the disease was confidently anticipated.

Persons debilitated by previous indisposition, or intemperance, are more readily infected than others whose strength has not been impaired. In the latter part of February last, several soldiers of the 1st battalion of the 53d regiment, quartered at Hexham, were taken ill of typhus fever, which appeared extending itself very rapidly, until an hospital was established; the sick were then removed from their quarters, and by proper attention to cleanliness, separation, &c. the disease gradually disappeared,



peared, after proving fatal to five men. The circumstances which gave rise to the disease are explicitly stated in a letter from the surgeon of the regiment to the writer, of which the following is an extract.

“ I was not informed of any of the inhabitants of Hexham being affected with fever, previously or after it attacked the soldiers. The men were very much crowded in their billets; in general, three in a bed, and three or four beds in a dirty small room. The soldiers were allowed some days, before the regiment arrived at Hexham, to volunteer for general service, consequently intemperance followed.

“ The early symptoms, in general, were slight head-ach, with moderate heat; quick, weak, and small pulse; great prostration of strength, and senses much impaired. I found in two or three cases much benefit from the liberal use of wine, &c. It is perhaps well to remark, and what no doubt you have observed, that in most towns in England the rooms the innkeepers allot for soldiers billeted upon them are a good deal separated from their houses, consequently from the inhabitants; and the men being early removed to hospitals, will, per-

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haps,



haps, partly account for the disease not making its appearance amongst them."

The quarters allotted for the military in Newcastle and Gateshead are, in general, extremely bad. Many of the inferior public-houses in Sandgate, Castle-Garth, Pipewellgate, and Hillgate, are totally unfit for the accommodation of soldiers; although a greater proportion of business is done in them than in houses of a more respectable appearance, which makes the ordinary mode of billeting not only oppressive to many innkeepers, but destructive to the health of the military in general. The circumstance of *paying out*, as it is termed, or allowing a shilling or eighteen-pence per week to a soldier, on condition of his providing himself with lodgings, admits of many serious abuses, out of the power of the regimental officer to obviate. Can it be expected that a regiment removed from clean and well ventilated quarters or barracks, to the confined and filthy apartments of the public-houses in Newcastle and Gateshead, will remain long without experiencing the ill effects of that unfavourable change of situation? Certainly not. The inhabitants may be habituated to breathe a contaminated atmosphere with impunity; in the same manner poisons are made familiar with some persons. The native of a hot climate accustoms himself



self to take as much opium as would compose a whole village, and a veteran debauchee quietly walks home with a quantity of wine sufficient to intoxicate four or five persons. The unhealthy state of quarters for the military in Newcastle clearly appears from the heavy sick lists regiments have to complain of soon after their arrival in the town, which might be in a great measure prevented by having barracks made; the advantages of such accommodation for soldiers are incalculable, as the scattered disposal of a regiment entirely defeats the intention of all regular discipline conducive to health.

A great proportion of the sick of regiments quartered in Newcastle, Sunderland, Shields, Hexham, Morpeth, &c. originates in the badness of accommodations, which may be justly referred to the inattention and scanty providence of the innkeeper, who considers a crazy bed frame, a little straw, and an old blanket or two, sufficient necessities for a soldier after a wet and fatiguing march; and should he be fortunate enough to escape disease in a serious form, seldom fails to receive the legacy of an infected predecessor, as appears by the prevalence of the *itch* in regiments after a march. This troublesome disease is seldom confined to the soldier,



but frequently finds access into genteel families. The partiality many servant girls have for a *red coat* leads them into incautious intercourse with the *infected favourite*, who *generously* bestows the itch with his love. From the servant it is conveyed to the children of their masters, and so on until the whole household become infected. The necessity of having barracks in a large and populous town like Newcastle, being the centre part of a military district, is obvious, and requires no other circumstance to urge the adoption of such accommodations than the comparative degree of health and sickness in barracks and in crowded quarters, independent of the convenience of keeping up military discipline. The evil is not entirely confined to the individual; the public service is affected by it, and the safety of the inhabitants endangered by the sudden appearance of contagious disease, the offspring of crowded, filthy, unventilated lodgings.

The Fifeshire Regiment of Militia arrived lately at Newcastle; from that time their sick list began to increase daily; typhus fever made its appearance amongst the soldiers, and has already proved fatal to some of the men.

The writer has been favoured with the following remarks by the surgeon of the regiment, as to the causes



causes of the disease.—“When soldiers are in quarters, four, six, and ten are often put together in rooms where they have to sleep, clean their musquets, &c.; at least, it is so with our regiment in Newcastle. Such a number of men in one room, and two or three sleeping in one bed, the atmosphere must very soon be vitiated; and should the windows be opened, as there is commonly but one window in the room, there can be but a very little current of air to remove the air vitiated; and should there even be two windows, and opposite one another (which, I believe, is not the case in one out of thirty), the lanes in which the soldiers are commonly billeted are so narrow, and the houses so high, that the free circulation is very much, if not altogether, impeded. Such a state of the air (from causes still remaining) must very soon become highly detrimental to the health of the soldiers. In houses where a free circulation of air was had, very few cases of this fever occurred, as far as have come under my cognizance.—I consider this fever truly contagious, though I have had no patient immediately infected from another person labouring under the disease, as I have always used nitrous fumigations to prevent such accidents occurring.”

The



The unfavourable circumstances attending the spreading of contagious fevers in Newcastle, have been very accurately described by an ingenious physician of this town (Dr Ramfay). The comparative extent of disease in the families of the indigent crowded together in small unventilated apartments, at the same time negligent of cleanliness and wanting the ordinary necessities of life, to others whose accommodations are more spacious, separate, and kept in clean order, will appear from the facts which came under the doctor's own observation.

“ In March, 1793, a fever with alarming symptoms, was brought from the jail among the inhabitants of a narrow entry near the *White Cross*.  
“ It spread as follows:—

“ In a family (occupying a small room and a closet) *seven* persons were infected.

“ In another house, the family occupying *two* rooms, *three* were infected.

“ In a third, the family occupying *two* rooms, *two* were infected.

“ And in a fourth house, the family occupying *two* rooms, *two* were infected.

“ Nearly



“ Nearly about the same time, a fever appeared  
 “ in an entry in the *Side*, and spread as follows :—

“ In a family occupying *one* room, *three* per-  
 “ sons were infected; from hence it was carried to  
 “ *Gateshead*.

“ In another house, the family occupying *one*  
 “ room, *one* was infected; the disease was carried  
 “ by this patient to the *Wall Knoll*.

“ In another house, the family occupying *two*  
 “ rooms, one of which was under-ground, *seven*  
 “ persons were infected.

“ In a fourth house, the family occupying *one*  
 “ room, *two* were infected.

“ In a lane, *Quayside*, during April, 1793, a si-  
 “ milar fever appeared.

“ In a house, the family occupying *one* room,  
 “ *seven* persons were infected; the disease from  
 “ this house was carried to *Sandgate*.

“ In a second family, occupying *one* room, *one*  
 “ person was infected

“ In



“ In a third family, occupying *one* room, *one*  
 “ person was infected.

“ In the *Castle-Garth*, about the same period,  
 “ this fever appeared as follows :—

“ In a house, the family occupying *one* room,  
 “ containing *two* beds, *six* persons were infected.

“ In the same house, another family occupying  
 “ a different room, *three* were infected.

“ In another family, occupying a third room in  
 “ the same house, *five* were infected.

“ And in a fourth room, in the same house, *one*  
 “ was infected.

“ To remedy these evils, Dr Ramfay proposes  
 “ that a plain building, capable of containing 20  
 “ or 30 beds, be erected by subscription, and sup-  
 “ ported by annual contributions, assisted by a  
 “ parochial rate.

“ Among the many great advantages arising  
 “ from such an institution, Dr Ramfay enumerates  
 “ the following :—That the comforts of personal  
 “ cleanliness,



“ cleanliness, air, and ventilation would be secu-  
 “ red to the patients by their removal to this  
 “ asylum, as well as to the more regular admi-  
 “ nistration of medicines and support; and that  
 “ the separation of the persons first affected would  
 “ be the more effectual method of preventing the  
 “ contagion from spreading in the family and  
 “ neighbourhood.

“ The Doctor concludes his observations, from  
 “ calculations he has made, that it would be eco-  
 “ nomy in the parishes to adopt such an institu-  
 “ tion; and that, with regard to the public, it  
 “ ought to be considered as a kind of insurance of  
 “ life, rather than an affair of charity—as an af-  
 “ fociation against those calamities which all may  
 “ be sharers of.

“ *Æque pauperibus prodest locupletibus æque.*”

The correctness of Dr Ramsay's remarks, re-  
 quires no other argument in confirmation; and  
 whilst they reflect a superior degree of credit on  
 the extent of his professional knowledge, evince a  
 disposition inclined to alleviate the sufferings of the  
 afflicted poor.



The valuable communications on *contagious diseases*, which the public have been favoured with by Dr Clark, afford the writer an opportunity of noticing several interesting facts, relative to the appearance and progress of infectious fevers in Newcastle.

The experience of a great number of years, in an extensive practice, confirms the Doctor in the opinion, that few towns of an equal size with Newcastle are less frequently visited with epidemical distempers, and that the continued fever is seldom or never absent in some of the habitations of the poor, “ and annually in the houses of some poor patients has been attended with a high degree of malignity, and consequently has spread in some districts of the town. A fever of this nature broke out in the narrow lanes on the *Quay* and *Pandon*; and was frequent in the latter end of 1797 and beginning of 1798. And a similar fever was generated in the *poor-house of Gateshead* in 1790; from whence it was carried into the narrow, ill-aired lane, *Pipewellgate*, where it committed considerable havock amongst the poor. In September it made its appearance in Newcastle, and, in several instances, was communicated to genteel families. This last fever, in which the infection was more virulent,



virulent, and fatal to a few of the inhabitants of better rank, was easily subdued among the poor; and never spread to any alarming degree, *when proper rules of prevention* were early carried into execution, either in private practice, or among the dispensary patients; and it is to be remarked, that fewer died amongst the latter than amongst the former, with respect to the numbers that were taken ill."

In the years 1791 and 1792 infectious fevers were very prevalent in Newcastle, and attended with unusual mortality, although not generally known, as the disease confined itself principally to the indigent inhabitants who kept *lodging houses*. When one unfortunate inmate died, another succeeded to his place, and the new comer caught the infection.

The fever which prevailed in the months of July and August last, although very little heard of, was extremely fatal, probably more so than the memorable disease which appeared in October last; as the former chiefly affected the *poor*, and, in the latter, infection was communicated to many respectable inhabitants, whose deaths were more generally spoken of and lamented. Notwithstanding that



chimerical agent, *Report*, buried numbers who are now living, dispensed the ceremony of tolling the dead bell, consumed tons of vinegar and tobacco in fumigations, represented the sick as deserted by their friends, transformed sedan chairs\* into pest vehicles, and habitations of the sick into lazarettos. Many of those misrepresentations having been received as facts, terror and alarm were impressed on all ranks of people in the town and neighbourhood of Newcastle; many of the inhabitants emigrated, and farmers were afraid to come to market; in short, the exaggerated accounts of the fever could only be equalled by a melancholy detail of pestilence and famine.

The ravages which infectious fevers make in large and populous towns, where there is a great proportion

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\* The following curious card was circulated in Newcastle:—  
 “I, John Austin, Chairman, Bigg-Market (two doors below Mr Ingham’s), beg leave to inform the ladies of this town, that I never will carry any person in my chairs in a state of sickness; and that I never did carry any person labouring under the fever, or any other infectious disorder, to my knowledge or belief. As many ladies have objected to use my chairs, I have thought it necessary to make this public declaration, and respectfully solicit a continuance of their favours.

“*Newcastle, December 14, 1803.*”



proportion of poor, is confirmed by melancholy experience.

Fortunately, however, the progressive improvement in medical science has already embraced an object of greater importance than the mere description and treatment of the febrile disorders of our climate, *the means of preventing the generation and spreading of febrile contagious diseases*, which the successful exertions of Dr Haygarth and other eminent physicians have contributed to facilitate. The most extraordinary advantages have already attended the beneficent establishment of fever-wards and houses of recovery, which must afford a source of pleasing reflections to their benevolent founders.

“It is a curious and interesting fact,” says the worthy Mr Bernard, “that the establishment of one solitary house of recovery at Manchester, should have nearly put an end to the contagious fever at that place; a place where the cotton-mills, and a variety of other circumstances, aided by extreme population, furnish so abundant a supply for the renewal of infection, that in one year, the average of fever should be diminished from 471 to 25, —the fever cases of the general infirmary to *one-fourth*, —the other patients to nearly *half*, —and the



the proportion of mortality under the fever from a *ninth* to an *eighteenth*, afford a pleasing example of what may be done by active and intelligent benevolence, labouring for the benefit of its fellow-creatures. This, however, has been attended with many other advantages, in the diminution of the general mortality of that place, and in the improvement of the domestic comfort and well being of the poor.”—[*See extract from an account of the institution to prevent the progress of contagious fevers in the metropolis, by Thomas Bernard, Esq.*]

Dr Ferrier also observes, “ The most striking proof of the benefit which the public derives from this institution (viz. the Board of Health) results from observing the diminution in the number of home patients (*i. e.* patients attended at their own habitations) of the infirmary. The number of home patients, from June 1795, to June 1796, was 2880; from June 1796 (immediately after the opening of the house of recovery), to June 1797, the number of home patients was 1759; that is, the illness of 1121 persons has probably been prevented by this institution, in one year (for the home patient’s list had generally increased every year).”—*Medical cases and reflections*, vol. iii.



Previous to the opening of the house of recovery at Manchester, the situation of the sick poor must have been truly deplorable; parents were suddenly swept off by disease, and their children left, unknown to any one, a prey to hunger. Newcastle has even furnished equal scenes of wretchedness and misery, which the exercise of an active charity might have prevented. The scanty pittance of an overseer is inadequate to relieve the wants of a sick family; it requires the extended hand of benevolence, directed with a degree of firmness and humanity. Money, given to sick poor, at their own disposal, affords them no permanent relief, as it is too frequently laid out in cordials and other useless articles, instead of the more important necessities of life.

The establishment of a *Board of Health* and *House of Recovery* are then the only means of effectually preventing the generation and spreading of contagious diseases in Newcastle; the plan and regulations have been laid before the public, but, unfortunately, the execution of them appears to have met with some unforeseen delay, as the fever-house, which ought to have been ready some time ago for the reception of the infected poor, at present remains in an unfinished state.

Should



Should an infectious fever make its appearance again in Newcastle, it is hoped that the prompt exertions of the medical officers to the new fever institution, aided by the humane exertions of the magistrates\*, will succeed in completely annihilating the disease in its source.

To remove the anxiety and alarm which the public generally experience during the existence of a contagious disease, requires no ingenuity; a correct and faithful detail of facts is alone sufficient in detecting false rumours and wanton misrepresentations; unnecessary alarm will then expire of itself, and the more rational safeguards against infection, smile at the imaginary virtues of the "camphor bag."

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\* The writer cannot omit noticing the deserving praises due to the chief magistrate and his colleagues for their active and benevolent exertions during the prevalence of the last fever.



