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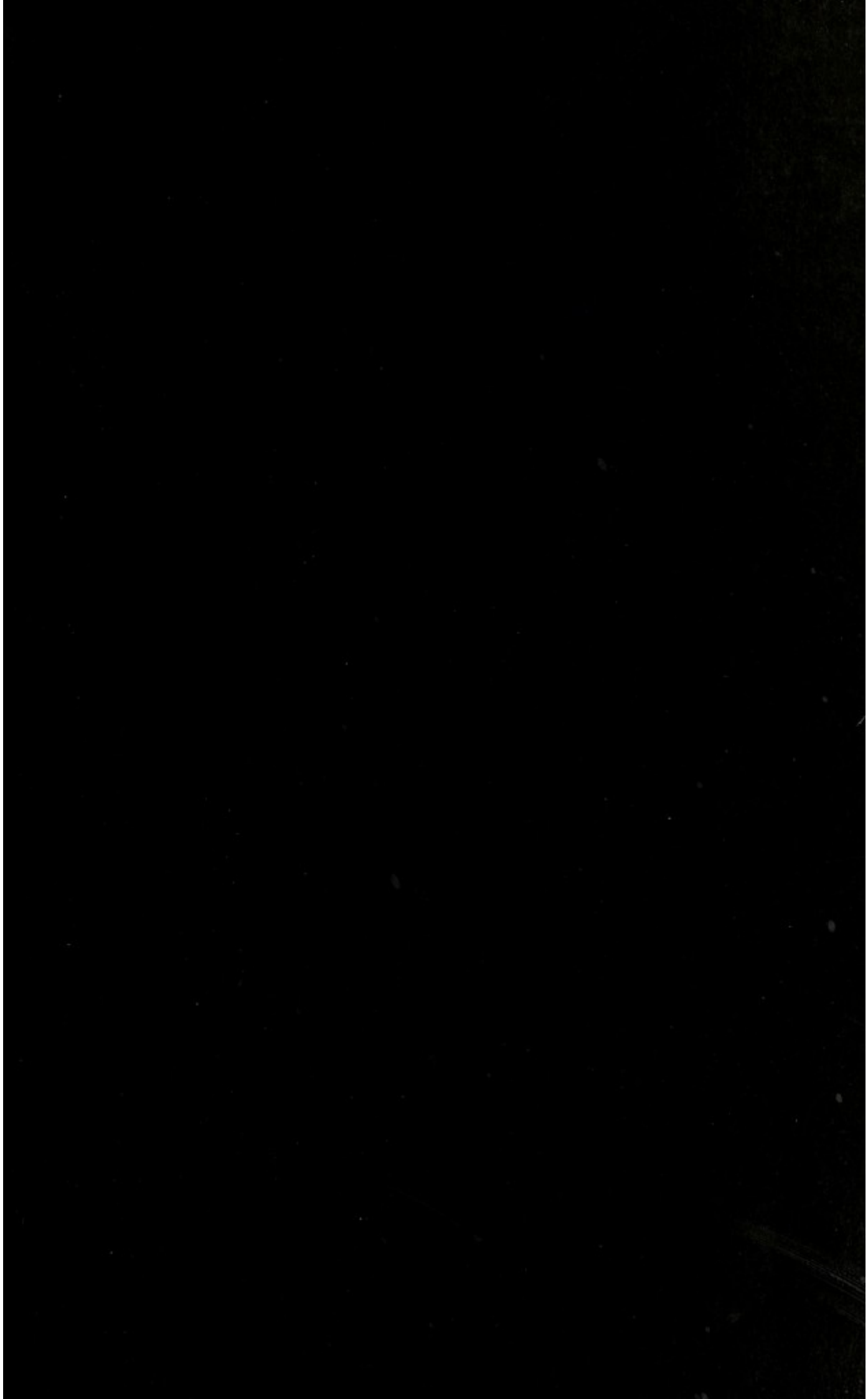
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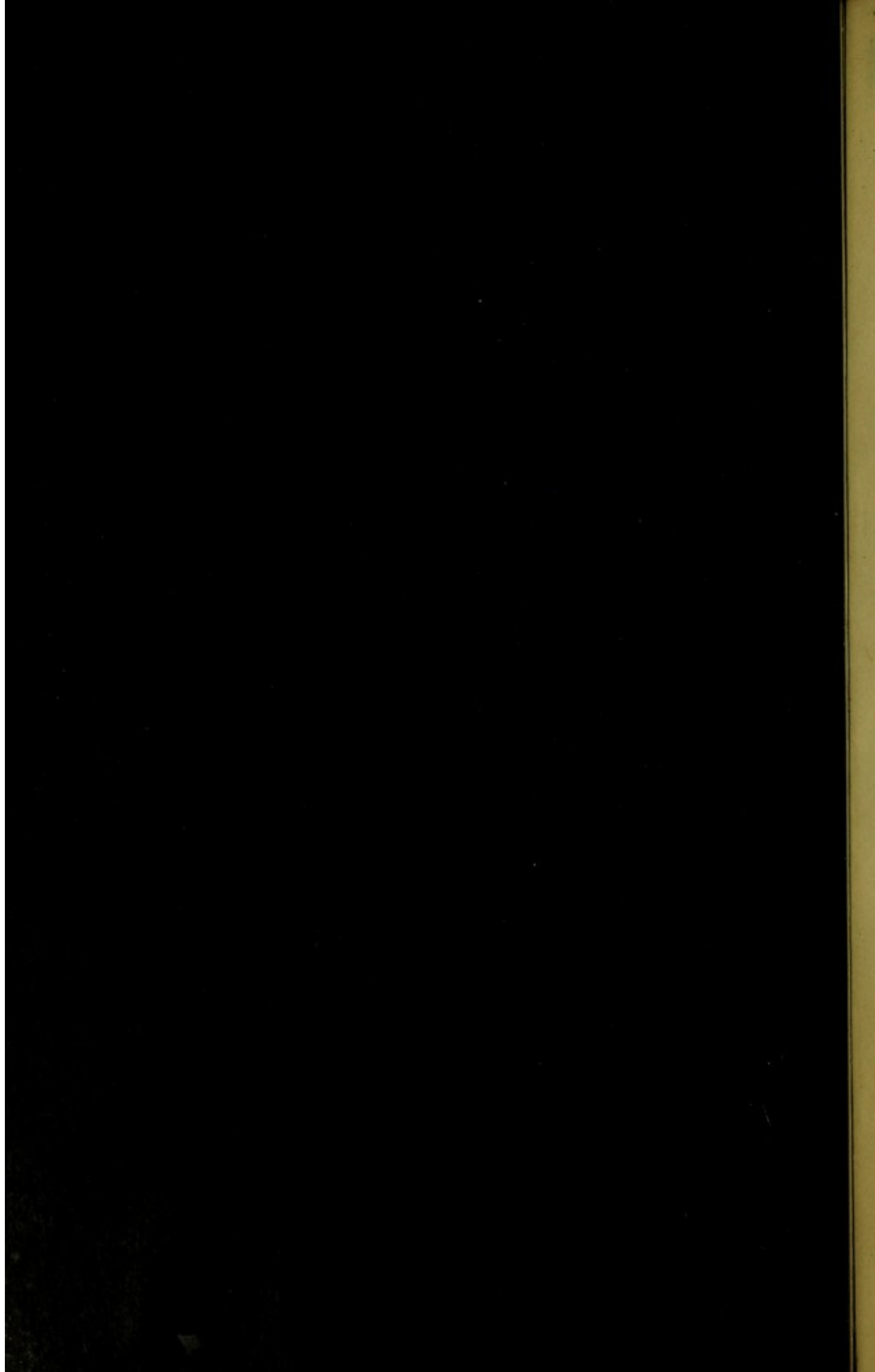
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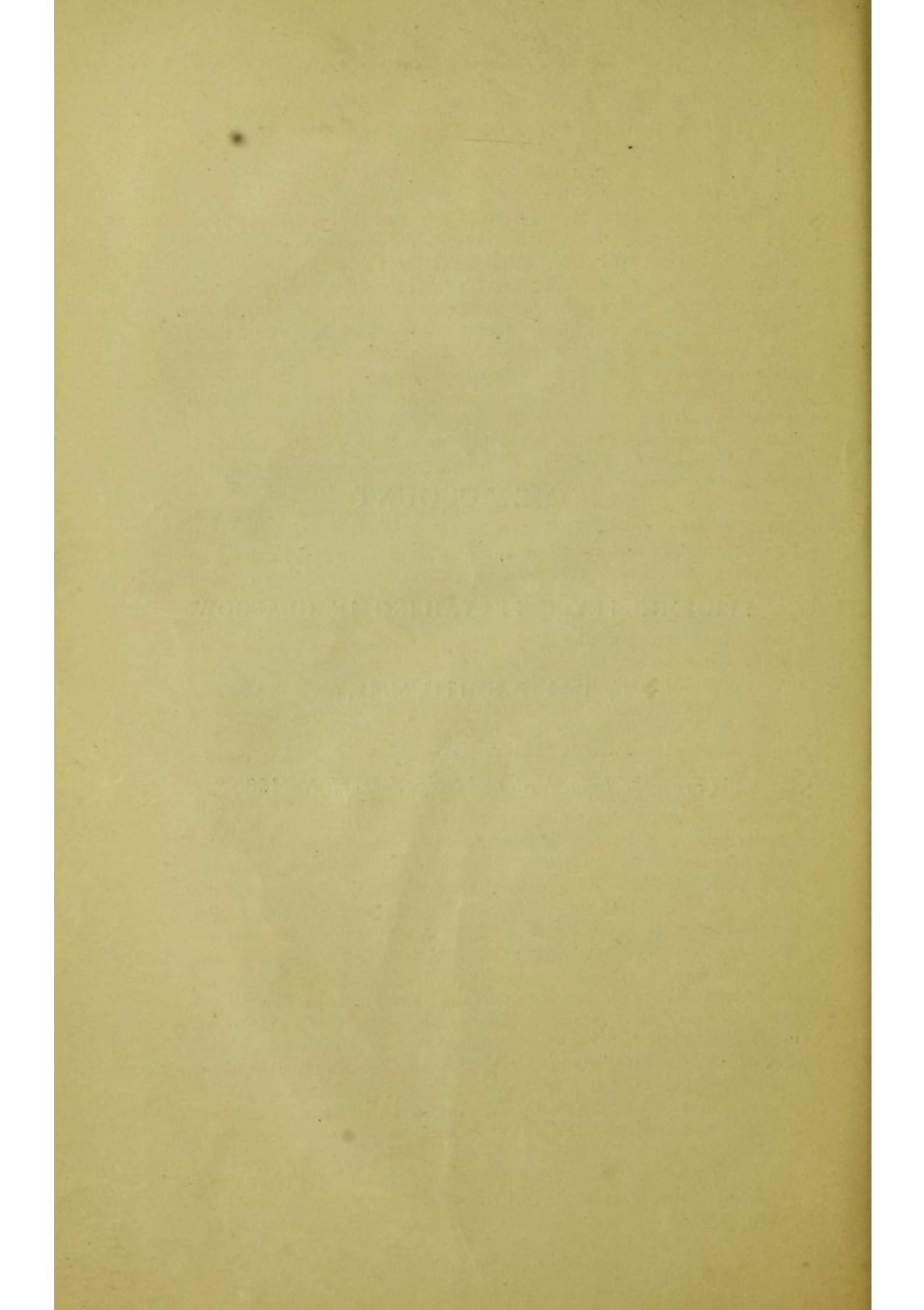
*To the Very Rev. Principal McFarlane
From the Author*

(8)

SOME ACCOUNT
OF THE
EPIDEMIC FEVER PREVAILING IN GLASGOW.

By DAVID SMITH, M. D., &c.

(*From the Edin. Med. and Surg. Journal, No. 158.*)



ACCOUNT OF THE EPIDEMIC FEVER, &c.

FOR several months past a form of continued fever has prevailed to a very considerable extent in Glasgow, presenting certain symptoms, the true nature of which has given rise to much discussion. I shall devote this paper to little more than a description of the disease as it came under my own notice. This I feel the more called upon to do, as the field of my labours has been in the lowest, filthiest, and most densely populated part of the city, and, of course, the least adapted for satisfactory practice, or correct theorising.

The tenements in which I have visited, are occupied from the cellars to the attics, and almost altogether kept for lodging-houses,—many of them being more fit for pig-styes than dwellings for human beings, and in not a few the donkey and pigs rest at night in the same apartment with the family. The entrance to these abodes is generally through a close, not unfrequently some inches deep with water, or mud, or the fluid part of every kind of filth, carelessly thrown down from unwillingness to go with it to the common receptacle; and in every close there is at least one of these places, situated often immediately under the windows of the dwelling-houses, or, together with byres, stables, &c., forming the ground-floor; while the stench arising therefrom, in summer, pollutes the neighbourhood and, more especially, renders the habitations above almost intolerable. The beds are variously constructed; some being merely a portion of the floor divided by a piece of wood, kept in its place with stones or brick; others have this space filled with shavings, or straw, without a blanket or coverlet; in other cases the beds are formed in tiers over each other, as in the steerage of an emigrant ship; and in a few there may be found a mattress and bed-clothes. Ventilation, even were it possible to be of use, is never attended to; the inmates of these hovels being, to all appearance, perfectly contented to breathe an atmosphere loaded with tobacco smoke, and the emanations arising from total disregard to cleanliness. Need I add to this that the inhabitants with whom I have to deal are of the very lowest ranks in society; a few of them are labourers, but the great majority are hawkers, and beggars, thieves, and prostitutes. At night whole families sleep in one bed, and as there are several beds in each apartment several families are made to occupy it. Thus, there are sometimes from twelve to eighteen persons huddled together in a space not more than as many feet square; and fathers, mothers, brothers, and sisters, dress and undress before each other, and also before strangers. In short, of the moral degradation, grossness, and misery of these people no adequate description can be given; and few, very few indeed, besides the district surgeons, know the actual condition of the pauper population of Glasgow. To practise, then, with satisfaction in such a situation is perfectly out of the question, not only from the want of pure air, cleanliness, diet, &c., so desirable in the treatment of disease, but the

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habits and spirit of such patients lead them to an almost total disregard of following out any prescription which interferes with popular prejudice or with what they consider right; at least in my intercourse with the poor I have uniformly found that the more illiterate and sunk in society any party is so much the more does he seem inclined to act in opposition to the wishes of his medical attendant.

As already stated, the fever which has prevailed epidemically for nine months past, has presented several varieties in its character and symptoms; and it appears that, to make the reader best acquainted with these, it is proper to describe, *first*, the most simple form, and, next in order, those affections which accompanied the disease,—the former being essentially the fever, while the latter can only be considered as secondary complications.

The symptoms which have marked the earliest stage of the fever are, lassitude and general languor, followed, after a shorter or longer interval, by headach, pain in the back and limbs, and chills, alternating with flushings of heat. The tongue is dry and slightly covered with a milky-looking fur, the bowels are almost universally inactive, although in a few instances diarrhœa is one of the first symptoms; the urine is high-coloured; there is considerable desire for cold drinks; the appetite for food is impaired; the pulse and respiration are fuller, stronger, and more frequent than natural; the countenance is depressed, and occasionally anxious; and the sleep is disturbed, or entirely gone. As the fever advances these symptoms become aggravated. The skin is hot; the headach and pains in the loins and over the body are severe, causing great restlessness in bed; the tongue is furred and dark in the centre, while towards its edges it is parched and red; the countenance is flushed; the pulse is occasionally as high as 156 in the minute in adults; the bowels, when no diarrhœa is present, require the most active purgatives to excite their action; the urine becomes scanty, and is often voided with difficulty; and the thirst is urgent. At evening the usual exacerbation of continued fever, with remission towards morning, is perceptible, but slight; and delirium, when at all present, is never violent, nor of long duration. The patient continues in this state for some days, when, very frequently after a chill, free perspiration bursts out over the whole body, and in a few hours every marked symptom of the disease disappears; or about the time of a crisis usually taking place the violence of the febrile action begins to abate, and the fever gradually declines, or, as I have thought that I observed in a few instances, passes into a typhoid form. In either case, however, the termination is followed by a state of great exhaustion, felt even while in bed and at rest; and the convalescence is always slow, although the period of attack has not extended beyond a week. The number of cases of this primary fever met with in conducting the treatment of 1000 successive cases, was 205.

Complicated with the above, in a very large proportion of cases, the first secondary affection which deserves attention as having prevailed most frequently, is gastric irritation. This symptom, in

some instances, amounts to little more than nausea, retching, or slight vomiting, with occasional tenderness in the epigastrium ; but, at other times, the nausea and vomiting are excessive and constant, continuing for several days when either medicine or drink is swallowed ; and pressure over the stomach is intolerable. It cannot be said that either the mild or severe form prevails the one more than the other, much apparently depending on age, previous bodily condition, &c. ; but I believe that, in the majority of cases, where there is great depression of the powers of life,—the effect of the latter state, the urine is considerably suppressed, and, in old people particularly, the patient is apt to become lethargic or comatose. I may state that, at first, the egesta are merely the fluids which have been taken to allay the thirst ; by and by, as the vomiting continues, bile is mixed with them, and, in some severe cases, blood may also be detected ; but I have never seen black-vomit occur once in the course of my practice. The number of cases of this affection was 643.

The next most frequent complication, and indeed the peculiarity of this fever, is jaundice. The first patient whom I saw with this symptom was an unmarried female, 22 years of age, who had been affected in the usual manner with fever a few days previous, and, believing her to be labouring under this affection, I had her sent to the fever hospital, where she was refused admittance, as not being a proper patient. But with regard to the jaundice ;—it appears in some cases to be very slight, the skin and conjunctiva being merely tinged ; but, in many, the yellowness was as deep as may be seen in severe cases of icterus. It generally comes on on the fifth, sixth, or seventh day of the fever ; sometimes reaching its fullest point in a few hours, and at other times advancing gradually ; sometimes it is unaccompanied with vomiting, but, in a large majority of cases, vomiting with uneasiness or pain in the epigastrium are present, and in no instance have I ever observed it in a child under eight years of age. Its duration varied from one day to a couple of weeks, and I have been led to believe that it does not interfere with the progress of the fever ; at all events, the crisis takes place, and there is remission of the febrile symptoms for a few days and relapse, just as if it had not occurred. In this respect the present epidemic differs essentially from the fevers of our country, inasmuch as jaundice has always been a rare complication in them, is seen chiefly in the autumn months, and generally proves fatal ; while we have had it prevailing as extensively throughout the spring and summer as in the autumn, and have not considered it as adding to the mortality. And probably it is to this difference more than to any thing else, that some physicians have imagined the prevailing epidemic to be a new form of continued fever, somewhat allied in nature to the yellow fever of tropical climates. The cases accompanied by jaundice amount to 384.

In point of number the cases next to be described are those with petechiæ. These, in general, present little peculiarity. The fever begins and proceeds in the usual manner, sometimes in its simplest form, at other times accompanied with some secondary af-

fection for several days, when spots, small at first and of a bright-red tint, without elevation of the skin, appear on the back of the neck and shoulders, and gradually spread over the body, increasing in size and darkening in colour until they resemble ecchymosed points. In the very young and most aged patients they are almost never wanting ; in the former seldom exceeding the breadth of a pin head, while in the latter they are usually as large as a peppercorn, and occasionally nearly as pale as freckles ; but patients in the prime of life are by no means exempt from them. They do not seem to add to the danger of the fever ; and I am satisfied that they do not appear on a specific day. Some physicians have supposed that they originate in flea-bites, but to this I cannot agree ; for they not only want the characteristic mark of a flea-bite, *e. g.* the dot in its centre, but the patient is frequently covered with them in the course of a single night, while on healthy persons sleeping in the same bed not a mark can be seen ; and, moreover, on careful examination, flea-bites may occasionally be detected among them. Of course, they are perfectly distinct from the exanthematous eruption of typhus ; indeed, with the exception of a few cases of the prevailing fever which were thought to pass into a typhoid form, I have not seen anything of typhus for some months past, and I believe it, as it existed in Glasgow for some years, to be a rare disease here at present. The number of cases having petechiæ was 314.

Diarrhœa and dysentery have very frequently been distressing complications of this fever. In the spring and early portion of the summer months these affections were only occasionally met with, sometimes in the beginning, at other times on the decline of the disease ; but for the last four months they have become more common, prolonged, and dangerous. The stools are at first merely more fluid than natural, generally considered by the patient as the effect of purgative medicine ; by and by they become dark and of an offensive odour ; and at last in severe cases they seem to consist entirely of mucus and blood. In general, there is great pain in the abdomen, and excessive tenderness on pressure not confined to any particular part ; but cases have also occurred in which there was no pain, not even uneasiness where the purging was pretty great. The tenesmus is very much complained of, as well as an indescribable feeling of weight and slight irritation about the lower portion of the bowel felt for some time before going to stool, but immediately relieved afterwards. Dysentery accompanies the relapse more frequently than diarrhœa ; but both these affections are less apt to occur during the primary attack of the fever than at a later period. They have prevailed to a greater or less extent in 167 cases.

Inflammatory affections of the chest were seen pretty often on the first appearance of the epidemic ; but as the summer advanced they became more rare ; and of late few cases have occurred. Among children, however, bronchitis has prevailed somewhat extensively throughout the whole epidemic season ; and, in a majority of cases, has been more severe in them than in patients beyond the age of puberty. This affection appeared generally with the earliest symptoms, and occurred in 132 cases ; while pneumonia and pleuritis

were only seen accompanying the relapse, and were present in three cases each.

Epistaxis, as it usually appears in fever, occurred in 13 cases. It presented no peculiarity worthy of notice.

A form of cynanche, having some resemblance to *cynanche laryngea*, was occasionally a source of much annoyance to the patient. It came on generally about the period of crisis, continued for a few days, and went off again. The fauces appeared dry but not unusually red, and there was no swelling of the parts. This affection occurred in nine cases.

It may not be unworthy of notice, that, in every case brought under my observation, in which pregnancy existed previous to the attack of this fever, abortion has occurred during the progress of the disease. One case, indeed, I did see, which might be said to prove an exception; but in this patient the feverish symptoms were little more than observable, and continued for only two or three days; so that, so far as my experience goes, I am inclined to believe that few, if any pregnant females have suffered from the epidemic without aborting. By a regulation of the town's hospital here the district surgeons are not obliged to attend on cases of miscarriage and delivery among the poor; and from this circumstance I have seen only four or five of the pauper patients in labour; but in these the progress of the fever seemed in no degree changed by the parturient pains. In my private practice, however, I attended one female who took fever in the ninth month of pregnancy, and on the third day of attack became sensible of uterine contraction, at the same time the head-ach, pain in the loins, thirst, in short, all febrile action, with the exception of the quickened pulse, disappeared, in which condition she continued until labour had terminated, when the disease again presented its usual character, and ran its course little if at all affected by this interruption. In a second case parturition occurred on the third day of the relapse, and here the patient in every respect resembled the preceding; but in another case, which came on on the eighth day of the fever, there was no remission of symptoms, and delivery was followed by the death of both mother and child in about three hours afterwards. The number of females in my district practice who aborted was 16.

The tendency to relapse in this fever has been exceedingly great,—so much so as to have led some physicians to the belief that the disease is essentially of a remittent type, similar to the fevers of hot countries. To confirm this opinion, however, much appears to me to be wanting. The fact that the relapse does not take place in every case, together with the irregularity of the re-establishment of the fever after the remission of the primary attack, may be urged with much propriety against such a view; for although in a large majority of cases relapse occurs, it does so at no definite time, and with no uniform intensity. In some cases the patient has recovered from the first attack so far as to have resumed his work before he is affected a second time, whereas in other cases he has not been free for above a day or two from the first attack, and has neither left his bed nor acted improperly in any way, until the recurrence of the fever; and some-

times the relapse is tedious and severe, while at other times it does not continue forty-eight hours. As is usual also in relapses of continued fever, the secondary affections, excepting those already alluded to, were more uncommon than in the primary attack; and in no case have I seen yellowness of the skin reappear when once it was on the decline. Relapses occurred in 712 cases.

On the disappearance of the febrile symptoms the recovery of the patient was occasionally somewhat retarded by certain sequelæ, which, although not of a dangerous character, were painful or annoying. The most frequent of these was rheumatism; and so universally did this prevail among the poor that not above a-sixth escaped without being subjected less or more to its attacks. The severity of this affection did not seem to depend on the sex, age, or strength of the patient, nor on any form or secondary affection of the fever; all appeared equally predisposed, but all certainly did not suffer alike. In the milder cases some particular joints only were affected to such a degree that motion in them caused pain, while in the more severe cases there was no period of entire ease, and the slightest movement of the body could hardly be borne. In these cases the patients often lay as still in bed as if they had been paralysed, and many of them supposed that they actually suffered from partial palsy; but this condition evidently arose from unwillingness to move the part, in consequence of its being so excessively painful, for if the limb was lifted and left unsupported, it did not fall immediately, and in a few hours, or at most a day or two, the power of motion returned. The rheumatic symptoms continued generally about a week, and always disappeared as the patient became stronger. Two patients had extensive gangrene and sloughing on the nates and over the lower end of the sacrum, from long-continued pressure on these parts, following severe attacks of a complicated form of the fever and of rheumatism, which confined them to bed for several weeks. In a number of cases the ankles became œdematous, and in one female ascites occurred, and ~~terminated~~ *terminated fatally*.

Of the communicability of this fever from a sick to a healthy person there does not exist in my mind the least shadow of a doubt; and while I am aware that I may have overlooked some circumstance which might weigh in favour of a different opinion, I have endeavoured impartially to examine the facts which have fallen under my notice every day for some months past, and these have appeared to me satisfactorily to establish the conclusion to which I have come. I have known the disease to pass from one family to another, where the partition dividing them was formed of thin deal board, or where the doors were immediately contiguous, although neither party had visited in each others house; occasionally I have attended patients in succession, whose abodes were each a story higher than the other, the last affected being on the top flat of the tenement; and I have seen, again and again, the disease attack every individual in a family the one after the other, and appear next in another family, some member of which had been in the habit of visiting or attending on the diseased, and spread in this manner throughout a number of

families, the foci becoming more numerous as the epidemic season continued. It is rare for any person to sleep in a house where a patient is sick of fever and escape without being affected. But it were endless to enumerate the facts which go to prove that a more infectious form of fever can hardly exist; for every person, from the infant nursling to the most aged, seems to be less or more obnoxious to its attacks when exposed to its influence. Of course much of this virulence may depend on the class of patients among whom I have practised, and the description which I have already given of my district will show that any disease, if at all infectious, must spread extensively in such a locality; but it is enough for me that my conclusion is legitimately drawn from the evidence thus afforded.

When death occurred, the patients seemed to sink into a state of lethargy or coma, from which they could be easily aroused, and would answer questions put to them with considerable correctness; and in this condition I have seen them remain for a couple of days. Generally, however, when the patient was advanced in years, the change which preceded death, and indicated its approach, was very sudden, more especially in cases accompanied with diarrhœa; and in no instance was there violent delirium, picking at the bed-clothes and such like. The secondary affections were always severe in those cases which did not recover, and, indeed, any variety in the progress and termination of the disease seemed altogether to depend on them. In all, 43 patients died; in 10 cases diarrhœa was present; in 9 jaundice; in 4 vomiting; in 12 diarrhœa, jaundice, petechiæ, &c.; in 2 dysentery; in 5 bronchitis; and in 1 pneumonia. Death took place in 6 cases on the 5th day, and in an equal number on the 10th; in 5 on the 9th; in 4 on the 8th, and the same number on 7th; in 3 on the 27th; in 3 on the 23d; in 2 on the 6th, 11th, and 20th days; and in 1 on the 13th, 16th, 22d, 28th and 30th days. There died 5 under 2 years of age; 3 aged 59, and 3, 28; 2 died in their 23d, 25th, 35th, 51st, 56th, and 60th years; and the remaining 20 were aged as follows:—8, 15, 16, 21, 25, 27, 30, 32, 38, 40, 46, 48, 54, 56, 60, 63, 68, 75, 77, 80.

On the first appearance of the present epidemic amongst us, I embraced the opportunity of testing extensively the effects produced by emetics, diaphoretics, and other evacuants, in cutting short the progress of the disease. In upwards of 150 cases seen on or previous to the third day of attack, this mode of treatment was adopted; and in addition, about 50 patients labouring under the symptoms of threatened relapse, were subjected to the same treatment as those in the incipient stage; but in all I have never seen a satisfactory arrestment of the fever: on the contrary, I have been led to believe, from what has fallen under my own observation, that this disease cannot be cut short at its outset by any means. No doubt cases occasionally occur which seem to prove a different conclusion, but, as has been well observed by Dr Christison, "if we consider how impossible it is in the commencement to distinguish continued fever from ephamera, as well as from some local inflammations which may be cut short, strong reasons will appear for calling

the authenticity of the alleged cases in question." Indeed, so satisfied am I of the inefficacy of any mode of treatment to arrest this fever, and, judging from analogy, any form of continued fever, that in several hundred cases which have been lately under my management, no attempt was made at cutting short the disease, and emetics, active purging, &c., were altogether avoided for this purpose.

The prejudice which prevails so extensively among the class of patients who have almost alone been the sufferers from this fever, viz. that vomiting, sweating, and purging will carry off the disease, enabled me to rely with far more confidence on the results following the exhibition of emetics, diaphoretics, &c., in the incipient stage, than from any medicine prescribed at a later period; in fact, I could place no reliance whatever on three-fourths of what might be told me regarding the effect of any prescription which did not consist entirely with the views of the patients or their friends. On this account I am unable to speak with confidence of what was or might have been useful in the treatment of the disease; and, as this paper has already extended to a much greater length than I could have anticipated, I shall pass over this part of the subject without any further remark.

The excessive debility with which convalescence from this fever has been attended, together with the destitution which prevails among the poor, have caused the recovery of the patient to be more tedious than might have been expected from the duration of the period of sickness, and required the use of stimulants to prevent sinking of the powers of life. In a very large proportion of cases, and more especially in young children and aged people, it was considered necessary that wine should be exhibited pretty early in the disease,—regulated, of course, by the degree of debility,—or, at all events, immediately on the remission of the primary attack; and whatever may be thought of this mode of practice, I am satisfied that the lives of many individuals have been preserved by it. I have heard some medical practitioners say that they considered wine, and such like, unnecessary except in very bad cases, but I have sometimes seen mild cases suddenly become very bad from wine being too long withheld, and during the whole of my experience I have not known a fever patient injured by its being judiciously given. How can it be otherwise? The people are careless of themselves when in health. Their earnings are too often wasted in whisky and tobacco; they want clothing; many are of ruined constitutions from drunkenness and debauchery of every kind, so that they are unable to bear up against severe disease like the present fever, and their recovery depends in no small degree on the use of such means as those to which I have alluded.

Glasgow, 31st October 1843.

