

the last few weeks the magistrates have given notice of their intention to have dunghills and other nuisances removed if deposited, as heretofore, in certain public or exposed localities. This correction, however, of one particular evil will, in all probability, be to a very limited extent; and I may remark that, from indisposition on the part of the people, it is to be apprehended that endeavours to alter the economy of their dwellings or habitual modes of life will, at least in many instances, be attended with considerable difficulty and opposition. From all the facts, however, which have fallen under my own observation, and from what I have learned from the reports of others, it cannot, I think, be disputed that some system of sanitary measures is both necessary and desirable; and that, while benefiting the poor in particular, it would contribute to the welfare of the community at large.

*Dumfries, January 22, 1841.*

R. D. McLELLAN, M.D.

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No. 11.

REPORT ON THE SANITARY CONDITION OF THE TOWN OF AYR.

BY DR. JAMES SYM.

AYR stands upon an extensive bay on the west coast of Scotland, where the Atlantic Ocean forms the commencement of the Frith of Clyde; and opposite to this bay, at the distance of about 15 miles, lies the mountainous island of Arran, the intervening channel being the ordinary course of navigation for the shipping of Glasgow and Greenock. The *water* of Ayr divides the royal burgh from the northern portion of the parliamentary burgh, and the *water* of Doon falls into the sea two miles south of the town. The banks of these two rivers are thickly planted with the pleasure grounds of some of the principal proprietors in the county, and they comprise the most interesting portions of the land of Burns. The heads of Ayr, which terminate the Brown-Carrick Hill on the west by a range of picturesque precipices having their bases washed by the sea, form the southern boundary of the bay; and betwixt these and the Dundonald hills, which approach the coast about six miles north of Ayr, there is a sandy plain of from one to three miles in breadth, rising very gradually as it recedes from the shore, till it becomes bounded on the east by considerable elevations of stiff clay land. The sandy subsoil of the plain is covered by a scanty layer of vegetable mould, which has been brought to a state of high cultivation by constant supplies of manure bestowed upon it by a skilful and enterprising race of farmers.

The sand lies upon a stratum of new sandstone; this is quarried in the immediate vicinity of the town, and yields excellent materials for building. Beneath the sandstone there are valuable beds of coal, and the mining and exportation of the coal afford employment to a large portion of our labouring population, and constitute the staple trade of Ayr. The valleys of the Ayr and the Doon are richly wooded; but from the shallowness of the soil and exposure to the west winds, the plain at a distance from those valleys is generally deficient in trees. The ground upon which Ayr itself stands is very flat, its declivity towards the sea being scarcely perceptible, and that towards the river on either side not considerable.

The climate of Ayr is mild in respect of temperature, more so I believe than that of any other place on the mainland of Scotland. This arises from the circumstance that the winds for about two-thirds of the year are westerly and partake of the temperature of the ocean; whilst the north and east winds only prevail for short periods, and are somewhat, though imperfectly, intercepted by the hilly amphitheatre that bounds our plain. From comparing thermometrical tables kept at Ayr with those kept at Greenwich, I am satisfied that the average temperature of our winters approaches, if it does not equal, that of the mildest districts of England; and it is certain that snow lies for a very short time in the immediate neighbourhood of Ayr. At Ayr the mean temperature of the month of December, 1840, at 10 A.M., was 37·8° Fahr.; the minimum at that hour being 26° (on the 24th), whereas at Greenwich the mean temperature of the same month at 9 A.M. was 31·3°, and the minimum 18° (on the 23rd). We must make a deduction for the difference of an hour in the times of observation, and for the observations in the one instance being made at Croom's hill and in the other nearly at the level of the sea, still a difference of 6·5° is much too great to be accounted for from these circumstances. Whilst the temperature is moderate, we cannot boast of the moderation of our winds; those from the west are often extremely tempestuous, although they are by no means cold. They are generally accompanied by heavy rains; indeed almost the whole of our rain falls during high westerly winds; and we are not infested with those fogs and drizzling showers which are so frequent and so unwholesome in the narrower parts of the Frith. On the contrary, our atmosphere is clear, pure, and elastic; which causes the natives of Ayr, when they visit inland towns, to complain much of the oppressive thickness of the air, so different from what they had been accustomed to inhale. The bed of sand on which the town is built renders the soil remarkably absorbent, so that immediately after the rains have subsided the principal streets of the town, and the beautiful walks in the neighbourhood, appear dry and clean. This feature strikes visitors, who have been accustomed to the wet and muddy streets of such

towns as Glasgow and Kilmarnock. The same cause renders the houses, when constructed with ordinary care, free from damp; and notwithstanding the flatness of the streets and their great deficiency in drains, there is very little stagnant water to be seen, except when severe frosts congeal it before it has had time to be absorbed, and the sudden thaws which follow melt the surface, whilst it still remains hard beneath. The mildness of our winters and springs, the absence of drizzling rains and fogs, the purity of our atmosphere and the absorbent properties of our soil, conspire to render the climate of Ayr one of the most salubrious in Great Britain.

There are few wells of good water in Ayr. The water in general is strongly impregnated with lime, and the supply is defective. Strangers find it unpleasant, and I believe horses which have not been used with it are apt to suffer when it is given them to drink. This want is now about to be supplied, as a company has been formed for bringing water of the best quality and in sufficient abundance to the town. The operations for this important purpose have just been commenced, and I trust that after another year we shall have no cause to complain of want of wholesome water. The water of the river above the town is pure, and serves well for dyeing and other purposes for which soft water is necessary.

The proximity of the sea to the town, and the extensive beach of firm smooth sand afford excellent opportunities for sea bathing, which are justly appreciated and taken advantage of both by the natives of Ayr and by strangers who visit the town for that purpose. This is a very efficient mean for preserving the health of the lower orders. Indeed I know of nothing which conduces more than sea bathing to the prevention of disease amongst the working classes, who are not in the habit of cleansing their persons thoroughly in any other way. They cannot command leisure for indulging in this most salubrious luxury on their work-days, but on Sundays the whole shores both of Ayr and Newton are in life with the hundreds of people of humble rank of all ages, who are seen washing their dingy skins, and sporting amid the waves. Some fastidious moralists are scandalized at the indecency of such exhibitions, and many of our very pious citizens raise an outcry against the practice as a profanation of the sabbath. But as I can only contemplate its hygienic features, I must, as a professional man, give it my countenance, for if our poor townsmen do not bathe on the sabbath they will not bathe at all. I should rather like to see these ablutions decently regulated by our civic authorities, and adopted as religious observances in our Presbyterian discipline, than have them reprobated by persons of sensitive propriety, and subjected to the anathemas of ascetic sticklers for the sanctity of the sabbath. It is not merely the ablution of the person and the action of the salt water that conduce to the

healthfulness of sea bathing; the free inhalation of the pure atmosphere of the ocean by the untrammelled chest, and the exposure of the skin to the genial rays of the sun, conspire in no small degree to the benefits resulting from this delightful indulgence. In addition to sea bathing, Ayr will soon enjoy the advantages of hot baths, which are now in course of erection upon the south shore. It is intended to afford them at such moderate charges that they will be more generally available than is usually the case in such establishments, the bath company being actuated entirely by a regard for the public good, and not by mercenary considerations.

Ayr is abundantly supplied with coal at a very reasonable cost and of excellent quality. 12 cwt. are laid down at the houses of the inhabitants for 5s. 6d. This is the kind of fuel universally used, and it is a great blessing to the community, that people in moderate circumstances can always afford to have a comfortable fire. Coal is retailed in small quantities to the poorer classes at coal yards, of which there are several in the town; and colliers are permitted to carry home from the pits a supply for their families.

Ayrshire has now become the greatest agricultural county in Scotland. The diversity of land in the different districts gives scope to husbandry in all its varieties. In some, grazing sheep both for the wool-merchant and the butcher, and rearing fat cattle, are chiefly pursued. In others, corn is more extensively cultivated, whilst due attention is also paid to the dairy; and in the most fertile districts of the county large dairies and feeding off sheep upon turnip, are principally relied on by the tenantry for paying the high rents at which they hold their farms. Ayr is accordingly well supplied with agricultural produce of every description. Oatmeal is somewhat lower in price than in the central counties of Scotland, and its quality is excellent. It is extensively used in the forms of cakes and porridge by the labouring classes. Our wheaten bread is also of superior quality and free from adulterations; which we owe in a great measure to the circumstance, that our principal grain merchant and baker is a man of the strictest integrity and considerable wealth, and the quality of bread which he furnishes forms the standard for inferior tradesmen. There is a market for sheep and cattle every Tuesday, which is attended by dealers and butchers from every part of the county, as well as from Paisley and Glasgow, so that we are well supplied with butcher's meat, and our mutton in particular is excellent; the prices are lower than in Glasgow, and the butchers are in the habit of selling meat to the working classes at a considerable reduction: beef, for instance, for which an opulent customer will pay 7d. per lb., is readily purchased by a collier's wife at 5d. It is scarcely necessary to mention that in a county so much distinguished for its dairy as Ayrshire, the butter and cheese are of the best quality; and as there is a market held in

Ayr twice a week, both for butter and eggs, the inhabitants have always an opportunity of purchasing those articles fresh. They are also abundantly supplied with butter-milk and with poultry. There are several market gardens in the neighbourhood of the town, and non-resident proprietors in the country are in the practice of letting their gardens during their absence, so that we are well provided with cheap roots, vegetables, and fruit: these are brought to the town in carts every morning, which are ranged along the High-street to the number of from one to two dozen; and around them are seen crowds of females procuring the daily supplies for their families. The farmers near the shore are in the habit of manuring their potatoe ground with sea-weed, which produces potatoes of large size, but inferior quality; they are apt to decay and become unwholesome when long kept. Of all our markets, the fish market is not only most remarkable for abundance and variety, but for cheapness: we have turbot, sole, skate, flounder, ling, cod, haddock, and whiting, as our ordinary stock; and we have plenty of herring, mackerel, and salmon in their seasons. If our fishermen were a little more industrious and enterprising, our supplies would be still greater, as the quantity of fine fish in our bay seems to be inexhaustible. Many of the labouring people who cannot afford to purchase butcher's meat, obtain a savoury breakfast, which is their luxurious meal, by adding a fried fish to their ordinary fare. The fishmongers sell a pound of whittings to the poor for a penny, whilst they charge three half-pence to their more wealthy customers—a mode of levying a tax from the rich in favour of the poor which cannot be much blamed.

The parliamentary burgh of Ayr comprises the royal burgh on the south side of the river, and the urban portions of the parishes of Newton and Wallacetown on the north. They form one town, merely intersected by the river, across which the only communication by carriage is by the new bridge immediately above the harbour and continuous with the principal street of Newton. The old bridge is 150 yards higher up the river, continuous with the principal street of Wallacetown, and now only patent to foot passengers. The extreme length of the town from the head of Newton, to the south side of Wellington-square, is 1500 yards, and its greatest breadth, both on the north and south sides of the river, is about 1000 yards. Within its outline it contains a surface of about 180 acres.

By a census taken in 1836, it appears that the population of the royal burgh of Ayr within the toll-bars was 6240; that of the town of Newton 3768, and of Wallacetown 4277, amounting in all to 14,285, which I believe does not fall far short of the present population. It is thus obvious that Ayr is a very open town, having not more than 18 families, at four and a half individuals to each family, (which is found to be our rate,) upon the acre.

The only place where the population is very dense, is that portion of the High-street which extends from the new bridge to Mill-street and Carrick Vennel, with about 200 yards of the same street where it forms the commencement of what is usually called Townhead. Here there is a compact mass of back premises in which each apartment generally contains a whole family; the rest of Townhead, as well as Mill-street and Carrick Vennel, is much less densely populated than the haunts of the poor in most other towns; not on account of fewer individuals being confined in one apartment, for they often amount to two families, but from the circumstances that the streets are widely apart from each other, and the houses only of one or two stories in height, with few back dwellings. The new part of the royal burgh in which the more opulent of the inhabitants reside, is altogether free from crowding; and the same may be said of Newton in general, and of Wallacetown, which are mostly occupied by the labouring classes. In Wallacetown, as in the Townhead of Ayr, the streets are far apart from each other, so that there are few families on an acre, although poverty drives too many under each roof; and in this sense the population may still be regarded as crowded.

The streets of Ayr are wide, and those in the new part of the royal burgh have generally houses only on one side; the circulation of the air, instead of being confined, is thus rather too free. In the High-street, where the under stories are occupied as retail shops, the houses are not only built on both sides of the street, but they are shut in behind by the back premises I have mentioned, from which the fresh air and the salutary rays of the sun are equally excluded. Here the front houses are generally three or four stories high; and through these there is access to the back premises by a narrow passage of three or four feet in width by seven feet in height. The houses behind run at right angles with the line of the street to the distance of from 100 to 200 feet from the front rows. The little alleys are only from four to six feet wide, and there are sometimes houses on both sides, sometimes houses on one side only and a wall on the other. The Townhead has fewer of these back premises, and there are almost none of them in Wallacetown. In the main street of Newton, they are frequent, though not nearly to the same extent as in the High-street of Ayr. The streets of the royal burgh are well causewayed, and have sufficient slope towards the river; but in Wallacetown they are more level, and neither causewayed, nor in some places even properly gravelled. The inconvenience of these defects is in some measure lessened by the absorbent nature of the subsoil, and the want of thoroughfare through such parts of the town. Another defect in the structure of the streets where the poorer classes dwell is that, instead of having the surface of the street somewhat lower, it is generally several inches higher than the ground floors of the houses.

A good covered sewer traverses the principal streets of the new

part of Ayr; but the old part of the burgh, and both Newton and Wallacetown have merely shallow open gutters along the sides of the causeway. These gutters receive all the liquid refuse from the closes and alleys which communicate with the street, and which are generally causewayed in such a way that one side is considerably higher than the other, so as to permit water to find its way to the opposite edge. This sort of drainage might suffice for all useful purposes in our dry sandy soil if we had an adequate establishment of scavengers; but the gutters in many of the streets, and in all the closes inhabited by the poor, are so much neglected, that they are never free from the stinking residuum of foul water. In Newton and Wallacetown the drainage is exceedingly imperfect; indeed in most streets of the latter it may be said scarcely to exist, and as the surface is very flat, almost the whole of the liquid putrescence and filth which are thrown out from the houses is allowed to filter through the sand or evaporate in the sun, leaving a most offensive paste at the sides of the streets and in the passages through the houses. This is the more to be regretted, that the beautiful state of cleanliness of the new part of Ayr shows with how little labour it might be obviated with the aid of our absorbent soil and free atmosphere. There are some streets, the main street of Newton in particular, which have such inequalities in the causewayed footpaths, and such want of escape by the gutters, that it is impossible to find one's way through them in a dark night, without many a plunge into the filth. There is everywhere sufficient slope toward the river to render drainage perfectly effectual if properly executed.

I think every part of the parliamentary burgh is sufficiently, and often more than sufficiently perslated by our westerly winds; with the exception of the back premises of the High-street, which are certainly too much defended from the winds in all directions. As many of the front houses have been recently rebuilt, and form a complete barrier to the access of the winds, these back premises are not likely ever to receive a supply of free air. It would be well for the community if they were razed to the ground, or allowed to fall to ruin.

The houses in which the labouring classes reside vary in different parts of the town. In the royal burgh they are generally old, and some of those which were originally occupied by single families in comfortable circumstances have now become the abodes of a distinct family, besides lodgers, in each apartment. These houses are sadly out of repair, and the rent of a single room is from 30s. to 2*l.* per annum. There are, I believe, no cellars occupied as dwelling-houses in Ayr, but as the ground floors are frequently depressed a few inches below the level of the street, and composed of clay full of inequalities, they are constantly dirty and generally wet; indeed, floors which neither admit of washing nor scrubbing cannot be otherwise. The upper flats and garrets are in a very ruinous condition, and almost all the poor houses

are thatched with straw, and the roofs old and in bad repair. The windows in general are fixed, and most of the glass is so much broken, that its place is supplied with boards, rags, and old hats. The ceilings are low, and these, as well as the walls, without plaster. In the old part of Newton, many of the houses are similar to those I have described; but some parts of Newton, and almost the whole of Wallacetown, are provided with houses of a much better construction for the labouring classes. They are of one story, with garrets; and, except in the poorest districts, only four families, or, when there are loom-shops, only two families, generally reside under each roof. The wide street in front, and the extensive open spaces behind, are such advantages, that if a very little care were bestowed on the mode of making the floors, I would consider these houses extremely well adapted for labouring people. In respect of furniture, I believe the houses both in Townhead and Wallacetown, which contain our poorest population, are supplied as elsewhere, namely, according to the circumstances of their inmates. There is usually a bedstead at each side of the door, often much shattered, beneath which all sorts of rubbish and lumber are huddled together, and also the store of potatoes for the family when they possess so much wealth. Nay, we sometimes detect a heap of horse-dung under the bed, which is collected by the children from the streets, and sold when a sufficient quantity has been accumulated. As to cleaning under the beds, this is never dreamt of, nor would it be easily effected, as they are generally closeted in upon three sides; and they are universally infested with bugs. The bedding consists of straw or chaff, with a scanty supply of dirty blankets and mats, but no sheets; one or two broken chairs and stools, and a fir table, constitute the remaining part of the furniture; and it indicates some degree of opulence when an old chest is seen by the side of the wall. The foregoing description applies to the houses of the poorest class of hand-loom weavers, generally Irish, and to other indigent tradesmen, who support their families by their regular industry. There is, however, a still poorer class, consisting of vagrants, paupers, and persons who have no regular employment, but apply themselves to any casual work that may occur. These people live in the most miserable hovels, or are found crowded together in lodging-houses in such numbers, that, when collected at night, the floors are literally covered with their persons. They pay a small sum for their lodging at night, and disperse themselves during the day.

There are very few public works in Ayr, and none that can be regarded as nuisances. The greatest nuisance is the filth collected about the houses of the poor. For instance, the back premises of the poorer portion of High-street have their narrow alleys obviously used for the purpose of necessaries, as the ordure with which they are thickly studded renders it difficult to pick one's

steps through them without pollution. In every little recess and corner there is a collection of ashes, garbage, and filth; but as there is not space in such depôts sufficient for the whole refuse of the contiguous dwellings, the remainder is discovered at the distant extremity of each alley, not confined in proper ashsteads, but widely diffused amongst the pigsties and dirty privies that close up the rear. In one place, near the south extremity of the churchyard, there is a large pig colony, called *swinefield*, where the sties are let at a rent to persons who have not sufficient room for them at their own houses. The ground here is full of inequalities, and the fetid drainings which proceed from the dunghills form abominable semi-liquid pools. In the more open streets which have no back alleys, this establishment of dunghills, pigsties, and privies, is close by the windows and backdoors of the houses; and wherever there happens to be an outer stair, the ashes and foul water are uniformly thrown from the top of it. This description is applicable in some measure to the meanest dwellings throughout every part of our parliamentary burgh; and the gardens which, with a little attention, might be rendered at once ornamental and healthful, are completely lost in both respects by reason of the surrounding filth. A large portion of the space which intervenes between the High-street and the river is occupied as a burying ground. Whether this constitutes a nuisance I do not pretend to determine, but I do not hesitate to affirm that the vacancy thus obtained is infinitely preferable to the dirty alleys and their foul accompaniments elsewhere. There are, however, in the High-street, two unquestionable nuisances, within the jurisdiction of the municipal authorities, which it is disgraceful to retain: these are the slaughter-house and the fish-market. The entrance to the former is by a narrow close, and it occupies a portion of the space between the street and the river, not far from the churchyard. It is surrounded by the ruinous walls of old houses, which prevent the purifying river breezes from ever reaching it. The fish-market is merely a wide part of the High-street, on the causeway of which the finest turbot and cod are often laid out without regard to cleanliness; and the fishwives are seen pumping water on them from a well, and throwing the offal into the gutter, from whence, in hot weather, the most nauseating effluvia of fishy putrescence are exhaled. There would be no difficulty in finding suitable places both for the slaughter-houses and the fish-market, where they would neither be injurious to the health nor offensive to the senses, and it is a reproach to the authorities of Ayr that they are allowed to remain in their present situations and conditions. There are two candle-works in the High-street, which certainly render the atmosphere extremely disagreeable, but I don't know that I am entitled to record them amongst the nuisances; and I may apply the same remark to several public stables and cow-houses in the alleys already described, around which there is no

space for proper stable-yards. There is a field, belonging to the burgh, close by the south beach, which is so little elevated above the level of the sea that it does not admit of thorough draining; but it is only in rainy weather that it is damp, and it cannot be accounted a marsh. There are likewise some quarry holes imperfectly filled up, beyond the Townhead of Ayr, and beyond Cross-street in Wallacetown; but their extent is so small that they appear to be scarcely worthy of notice. The river is perfectly free from stagnation. It is confined within sufficiently narrow boundaries by stone walls, which are carried out on both sides a considerable way into the sea, forming the north and south piers of the harbour; and the bed of the river has so much fall as to admit of a milldam near the Townhead. The ebbing and flowing of the tides reach to a short distance from the dam, so that there is no such thing as stagnant water in the river, even during the driest seasons.

It is a loss to Ayr that there are few indigenous manufactures, by which the profits as well as the wages of our industry might be retained amongst ourselves. The principal employment of the working classes is obtained from manufacturers in Glasgow and Paisley, who give work to about 1200 of our male population as hand-loom weavers, and to a still larger number of females as sewers of muslin. The prices of weaving are now very low, and it requires long hours of constant labour to yield a scanty subsistence. The best weavers can only make 8s. or 9s. per week, from which 1s. 6d. must be deducted for necessary expenses: a boy will make 3s. or 4s. About one-third of the weavers are Irishmen, and they are always in the most indigent circumstances. I am informed by the principal agents that there is fully as much money sent to Ayr for hand-sewing as for weaving; and were it not that the wives and daughters of the weavers can add to the family income in this way, their poverty would be insupportable; an expert sewer will make 1s. per day, and a young girl 3d. or 4d. The coal trade, which furnishes work for colliers, carters, and seamen, is by far the principal local branch of industry in Ayr. Colliers can easily make 4s. per day, but they seldom work during more than four days in the week. During a strike a few years ago, the coal-master sent a number of Irish labourers down into the pits, and since that time a considerable portion of the colliers have been Irishmen. At one time the fishermen were a much more numerous body than they are at present; the most enterprising of them have recently taken up their stations on the shores of Argyleshire, for the convenience of the Glasgow market, to which they send their fish every morning by steam-boats, and those who remain in Ayr are lazy, and consequently poor. Probably the Glasgow and Ayrshire railroad will have the effect of bringing back the fishing trade to our bay. The wives and daughters of the fishermen employ themselves in digging up bait

from the sands, and in selling the fish; I need scarcely say that they are not the most sober and orderly portion of our female population. We have one carpet factory, which furnishes work for about 200 workers of both sexes: they make tolerable wages, a good workman from 12s. to 14s. per week; and they are generally economical in their habits, and respectable in their conduct. At one time the leather and shoe trades were considerable in Ayr; but I understand they have now greatly diminished, and Kilmarnock has taken the lead in those departments. There is a species of industry peculiar to Ayrshire which is of great importance to the town, as it gives work to a numerous class who would otherwise be at a loss for profitable employment; I mean the Ayrshire needlework, which has become so celebrated. It not only yields a comfortable subsistence to females of the humbler classes, but it is cultivated by many of a superior class, whose circumstances are perhaps equally narrow, and who find it necessary to add to their incomes whatever they can acquire by profitable industry in which they can employ themselves privately and without any feeling of degradation. There is a shipyard, the spirited proprietor of which employs about 60 men at good wages, and has turned out several vessels of late of considerable tonnage. The exportation trade of our harbour consists principally of coal; and the most of our foreign trade is with America and the Baltic, from which we import cargoes of wood, hemp, tar, &c., though less, I believe, than in former times.

It is not to be supposed that the virtue of temperance will characterize a population whereof a considerable part consists of colliers, carters, sailors, and fishwives. In fact, drunkenness prevails to a very great extent, and not only causes idleness, but wastes the wages which are gained during the days of sobriety. Although the colliers have large wages, they are, from their want of economy, and their dissolute habits, uniformly in poverty; and their families, though well fed, are miserably clothed, ill lodged, uneducated, and less industrious than the families of the weavers, the females of which work with great constancy at hand-sewing. The modes of living of these two classes are very different. The weaver is not intemperate, because he cannot afford to purchase ardent spirits, and the nature of his employment prevents him from having those hours of idleness during the day, which the collier is so apt to consume in dissipation. He lives on very innutritious food, seldom eats butcher's meat, and the most indigent, who are generally Irishmen, subsist chiefly on potatoes. The collier, on the other hand, indulges to excess in ardent spirits, and both he and his family partake of animal food every day. In short, the colliers live better than any of the other labouring classes in Ayr. The want of indigenous manufactures is greatly felt in checking enterprise, and depressing both the intellectual and moral characters of our operatives. Colliers, carters, fishermen, sailors, and handloom weavers, have scarcely any

means of applying those mental qualities which nature may have endowed them with, in such a way as to raise them from their existing grade. Whereas, in the neighbouring town of Kilmarnock, where there are many local manufactures, such as carpet weaving to a very great extent, calico printing, shawl manufacturing, bonnet making, making machinery, currying, &c., we continually see enterprising clever journeymen saving a little money, forming partnerships, entering upon small manufacturing businesses on their own account, and not only raising themselves to respectable positions in society, but by their example affording such inducements to others to industry, sobriety, and carefulness, that the whole class of the manufacturing population is elevated to a higher status than in Ayr. Besides rendering themselves expert in the manual operations of their trades, they acquire a knowledge of the mechanical and chemical principles of the manufacturing processes in which they are engaged, and the modes of transacting general business; so that with a little money, and liberal credit, they experience no difficulty in conducting similar works for themselves. The operatives of Ayr are decidedly their inferiors in intelligence, enterprise, and ambition, and I attribute this inferiority to the want of local manufacturing establishments. In Kilmarnock the poorest operative, and the most opulent manufacturer, are linked together by an uninterrupted chain. A constant intercourse is kept up amongst the several classes of society; and whilst the increased intelligence and cultivation that obtain amongst the operatives are no doubt met by a lower state of refinement, and less fastidiousness in the manners and tastes of their superiors, than in more aristocratic communities, even this is not without its advantages; because, when a mechanic raises himself by successful enterprise to an equality with his hitherto more opulent townsmen, he finds that there is no great barrier, from difference of education and habits, to prevent an unrestrained intercourse with the social circle of which he has now become a member. At the same time common feelings and interests still connect him with his quondam fellow operatives, amongst whom are to be found his nearest relatives; and whilst they receive from him their daily wages, their histories, circumstances, characters, habits, and wants, are familiarly known to him. Hence when distress assails a labouring family they are not merely regarded as objects of compassion from being fellow creatures in affliction, but they receive the full flow of sympathy due to brothers and friends who are only separated from their more fortunate neighbours by events of recent occurrence, and capable of being easily traced. But the upper classes of Ayr, instead of having risen from a lower station in life by virtue of their industry, intelligence, and enterprise, consist more frequently of persons who have been born in a higher station than their present circumstances enable them to maintain; so that although their benevo-

lence is above all praise, it springs from different feelings, and meets with a different reception from those gifts of friendship and hospitality which are accepted of by one neighbour from another, as marks of fellowship rather than bestowments of charity. Indeed the mode in which the poor in Ayr receive assistance from the rich tends to vitiate the morals, and degrade the spirit of independence of the former. These look upon their benefactors as a distinct and favoured class, who have not obtained their present affluence by any merits which they can appreciate, or by any means which it is equally in their power to employ with a prospect of success, and when by their importunities or by false pretences they extract gratuitous supplies, they are too apt to conceive that they are only receiving what is their natural due. They are thus supported by the alms of the bountiful without being either inspired with feelings of gratitude, or with a painful sense of disreputable dependence; whilst at the same time a modest and virtuous family may be pining in starvation, without their condition ever becoming known to those who would alleviate their distress with alacrity and pleasure, if the wide chasm by which the wealthy are separated from the poor did not too often exclude the latter from the sphere of observation of the former. The step between using false representations to obtain what you behold with angry discontent monopolised by others, and seizing upon it surreptitiously whenever an opportunity occurs, is so short that little difficulty is experienced in passing the boundary by which beggary is separated from larceny. There are accordingly systems of pilfering, which prevail extensively amongst the lowest classes of society, and by means of which the poor supply themselves with a greater share of the stores of the wealthy than all the alms they receive through the avowed channels of regular charity. The principal agents in this nefarious practice are a disreputable set of female domestic servants, who are in the habit of conveying away the property of their masters either to their poor relations, or to persons from whom they receive a small remuneration. This vicious practice generally commences with collecting the refuse of the table in a vessel appropriated by the cook to that purpose, the contents of which are sold from time to time for a trifling sum to people who feed pigs. In order to increase their profits, the servants prepare double the quantity of potatoes, vegetables, soup, &c., that are required by the family, and they also toss whatever cold meat they can secrete into the pig's crock. As their customers are equally ready to purchase other articles, bags of raw potatoes, meal, coals, empty bottles, china ware, crystal, and iron utensils, are disposed of in the same way. In short, a large portion of the female domestic servants of Ayr are habitual pilferers; and amongst the class of people immediately below our industrious artisans there is no scarcity of abettors of their crimes, who give every facility and assistance in conveying away and disposing of the stolen goods. These practices pervade a large class of our

inhabitants who have no regular employment, and who seem to settle in Ayr chiefly with a view to living on the public charities and private benevolence which are known to prevail to a greater extent there than in almost any other town in Scotland.

Poverty has an influence on the health of two classes of our inhabitants, viz., the hard-working poor, who in general support their families without the aid of public or private charity, and those who do not employ themselves in regular industry. The former are mostly weavers and out-door labourers. Their wages, when they are regularly employed, are merely sufficient to procure such a subsistence for their families as keeps them constantly on the verge of destitution; and when they are thrown idle by vicissitudes of trade, or by the inclemency of the weather, or when they have their expenses increased by domestic affliction, they are unable to provide for the wants of their families even during a very short period. Here we feel to its fullest extent the absence of local manufactures, by which a variety of branches of business are carried on in the same community at the same time, so that when one branch is depressed, another may be flourishing; and by which, families labouring under temporary difficulties are so much connected with, and interspersed among others in comfortable circumstances, that their wants are never so much overlooked as to reduce them to the last extremities of destitution. When one hand-loom weaver is thrown out of employment, all the weavers in the town are thrown idle at the same time; whole streets are reduced to a state of starvation; and it is only when their distress can be endured no longer that their condition begins to be considered by those who have the means of affording them relief. In such emergencies the benevolence of the wealthier classes comes to their aid. Money is raised by subscription, which is either distributed amongst them in small sums, or laid out in supporting soup kitchens, or given in the form of wages for work provided for the occasion. The weavers are sometimes retained at their looms, yarn and wages being supplied from the subscription funds; sometimes, they, as well as the other labourers, are set to repair the highways, or make other public improvements. The former method of employing them has the advantage of requiring no sacrifice on the part of the weavers, whilst it has the disadvantage of prolonging the glut in the markets, which is the source of the evil. The latter has the advantage of conferring a lasting benefit on the community, whilst it has the disadvantage of being ill-suited to the constitutions, habits, dress, and delicate hands of the weavers. In cases of distress in individual families, from disease at home, or from casualties at sea, the charitable are ever ready to lend assistance; but I fear this falls far short of their exigencies. In such circumstances, as well as when reduced to straits from want of work, the people are obliged to borrow upon the credit of their scanty possessions, sums which greatly

exceed in amount all the disbursements from public and private charity put together. This accommodation is afforded them by the pawnbrokers, two of whom have taken out licences in Ayr within these three years, and established extensive businesses. Indeed the extent of their businesses, in addition to that of irregular pawnbrokers, is a melancholy proof of the straits to which the industrious poor are reduced by temporary difficulties. One of these pawnbrokers informs me that he has nearly 4000 transactions during each of the winter months, and that not more than one or two per cent. of the pledges are left unredeemed, except during severe and protracted depressions of trade. This shows that most of his customers are industrious people labouring under temporary difficulties; the pledges remain on an average about six weeks in his possession. They are mostly articles of dress, but watches and various other articles of value are also pledged; and while I was in the warehouse making my inquiries, a savings' bank pass book, in which there were 6*l.* to the credit of the owner, was pledged for 1*l.* As this could only arise from the circumstance that the person required money before the bank should be open on the following Monday, it shows that pawning is found convenient to others besides the poor; but this seemed, from the pawnbroker's remarks, to be a rare exception to the general rule. I have not ascertained exactly the rate of interest charged, but from what I have learnt I can easily see that it amounts to a very heavy tax upon the incomes of those poor people who have occasion frequently to resort to this mode of procuring relief from their temporary distresses. This pawnbroking, however, besides affording temporary accommodation to the industrious, gives facilities to the worthless members of a family to supply themselves with the means of dissipation at the expense of their sober and well-doing husbands, sons, or brothers; it too often happens that a wife during her fits of intoxication will pawn the last blanket from her husband's bed. If we suppose that our two licensed pawnbrokers have 50,000 transactions in a year, (there is comparatively little business done in summer), in a population of 3000 families, and that each family which has recourse to pawnbroking borrows on an average half-a-crown on each pledge, here is 6250*l.* borrowed each year for periods of six weeks by our industrious poor; and if we suppose that one-third of our population is of this description, each family will borrow about 6*l.* As this is done at a very high interest, it is a much less desirable way of obtaining relief than by having recourse to savings' banks and friendly societies, but unfortunately the poorest classes cannot save so much money from their scanty wages as will render these resources available to them, and the benefits derived from them are accordingly in a great measure confined to persons in more comfortable circumstances. I believe there is upwards of 1000*l.* per annum distributed in our parliamentary burgh by the different

friendly societies amongst their sick members, and others entitled to relief. I have hitherto confined myself to the condition of the industrious poor, who only apply for charitable assistance during seasons of peculiar difficulties; but the actual regular paupers of the parishes, and those indigent families who, on finding themselves on the brink of poverty, take up their residence in Ayr on account of the reputation the town has for its public and private charity, constitute a numerous class which remains to be considered. In giving information respecting this class, I cannot do better than quote largely from an excellent report on the state of the poor, drawn up in 1839, by the Rev. A. Cuthill, but which refers merely to the parish of Ayr.

“The burden of pauperism is a grievous one to any community, even in its lightest form, but it is certainly greatly aggravated when it accumulates in a parish to such a magnitude as to conduce, in addition to a larger pecuniary expenditure than ordinary, to the demoralization of the lower orders, by undoing their feelings of independence, and interfering with the cultivation of industrious and provident habits. That such an effect has been produced in the town of Ayr, is an opinion pretty generally entertained, and as the main object of the task devolved upon us will have to depend on this point, we have it in our power to show that this opinion does not rest on a mere vague impression, but can be supported by an abundance of actual facts.”\* . . . . “In short, did we go over the whole of the parishes in Scotland, hardly one would be found so overrun with poor as this town, or that raises so large a fund for their support, as compared with the population. We state again, that with a population of only 7600” (viz. in the whole parish), “we have nearly 300 regular poor, besides a great many who receive occasional charity. For supporting these, the assessment last year was 900*l.*, besides nearly 300*l.* in addition, arising from collections at the churches, the rent of Sessionfield, feu duties, and sixty-four bolls of Kincase meal from Loans. Taking population as the standard, we have nearly double of the poor per cent. of most other parishes in Scotland, not excepting even large manufacturing towns, such as Glasgow, Dundee, and Kilmarnock. In the last named town, the population is nearly treble of what ours is, and yet, strange to tell, it is burdened with fewer regular paupers receiving public support.”† . . . . “These,” (viz. the local charities,) “some of which we shall have occasion soon to notice more particularly, may swell the whole sum at present appropriated to the maintenance of the poor, to 1400*l.* or 1500*l.* a-year; and they are as fixed and regular, as much to be depended on, as the money raised by legal assessment.”‡ . . . . “The above extensive resources for behoof of the poor will furnish

\* Report of the Committee appointed to inquire into the State of the Poor and the Increase and Cure of Pauperism in the town of Ayr, 1839, p. 5.

† Ibid. p. 7.

‡ Ibid. p. 8.



ample reason to account for their great increase in this parish. It is uniformly found that they never fail to abound in all places to the extent to which they are provided for. The funds set apart for their support operate thus in two ways, namely, first, by generating them among the native population, through imprudent habits, and, secondly, by attracting such as are liable to become paupers, to seek to establish a settlement in the place from other parishes. Though this may be assigned, however, as the reason generally of the evil complained of, yet we may be assisted in attempting a cure for it if we try to ascertain the specific modes in which it shows itself in the town of Ayr. It may be remarked then as the root from which it springs, that there is no place where Christian benevolence, for the relief of distress of every kind, has a more extensive practical operation than here; and so available might it be rendered for supplying the wants of the needy, that were it not for the purpose of equalizing the burden, the poor could hardly fail to be supported by it, were it properly methodized, even were no public provision whatever made for them."\*

... "It is through the operation of this principle that the numerous charitable institutions existing among us,—our Dispensary, our Smith's seminary for poor children, our School of Industry, and Sunday schools, and our various benevolent societies, &c., have derived their origin. And more than all, it is this which has called forth in the near prospect of death those charitable legacies, bequests, and mortifications for behoof of the poor, for which our town has been distinguished above most other places. We need hardly say that we are proud of the existence of such a spirit among us, but we mention these things, not for the purpose of self-gratulation, but solely with the view of illustrating our subject. And surely it cannot fail to appear abundantly evident that this same spirit of practical humanity, showing itself so conspicuously in favour of the poor, must necessarily operate as a lure to many verging on the condition of poverty, to seek to fix a settlement where their wants are so likely to be amply provided for, when rendered destitute through disease, infirmity, or old age. But the influence of this philanthropic feeling is liable to show itself in a way still more hurtful than this, namely, by making many of the indigent working classes less provident than they should be in securing themselves and families against the evils of poverty, trusting that their wants will be attended to by public or private bounty, independent of their own exertions, should they ever be placed among the ranks of the destitute. Accordingly the shame and reluctance arising from the idea of parochial charity, or of partaking of charitable distributions, so characteristic once of Scotchmen, and nowhere more strongly felt than here, are year after year losing more and more of their influence among our native population. And we are sorry to say that this is accele-

\* Report of the Committee, &c. p. 8.

rated greatly by the mixture with them of so many of the natives of Ireland, generally of loose principles, and not very scrupulous about asking charity, and also of strangers from other parishes. In proof of what we now state, it is well known that one-half of the amount of coals now distributed annually among the poor at this season was found sufficient a few years ago for those who applied for them, and were supposed to need them; and that every year the applicants are increasing for this donation, among a class who once would have spurned at the idea of receiving charitable aid, and this to such an extent, that a few years hence, if not checked, it is likely to embrace all needy operatives and their families."\* . . . "The same is the case with respect to the distribution of Alderman Smith's charity, and our half-yearly sacramental collections. Those who formerly would not have considered themselves proper objects of public bounty, when they see others getting, who they think have a more questionable claim as being strangers, and probably from the nature of their circumstances, not always easy to be ascertained by the elders, are thus tempted to forego their pride and independence for the sake of self-interest—for the sake of taking their share as others do of the gifts that are so liberally distributed."† . . . "It is truly painful to witness the inroads which every year the above causes are making on the independent spirit and provident habits of our more indigent population. The higher rates of aliment also that we give to our paupers than they generally receive in the neighbouring parishes may have tended in some degree to their increase among us; while our having deviated from the simplicity of our Scotch parochial system in our mode of managing the poor, by the agency of so numerous a body of directors, may probably have had the same effect."‡ . . . "We trust that the above exposition will serve to account for the enormous increase of pauperism among us. And while the same causes are allowed to operate unchecked, its demoralizing influence on the more indigent classes of society, which is much to be deplored already, may be rendered ere long hardly susceptible of cure."§

The greater number of the families embraced in this "report," reside in the Townhead and adjacent streets of the burgh of Ayr. Newton and Wallacetown abound more than Ayr in the industrious poor, but have a much smaller number of actual paupers. In Newton the number of paupers in 1839 was 47, and in St. Quivox, from which Wallacetown is only separated *quoad sacra*, the poor on the roll were about 110, nearly the whole of whom resided in Wallacetown. Thus Newton and Wallacetown together only contain about one-half of the number of poor contained in Ayr, although they exceed Ayr in population by nearly 2000, and their inhabitants in general are much poorer than the inha-

\* Report of the Committee, &c. p. 9.

† Ibid. p. 10.

‡ Ibid. p. 10.

§ Ibid. p. 11.

bitants of Ayr. The expenditure upon the poor of St. Quivox is 250*l.* yearly, and that of Newton 164*l.*; these funds are raised by assessment and church collections. It would thus appear that a pauper in Ayr receives fully double the allowance of a pauper on the north side of the river.

From what has been stated of the hygienic advantages which the Parliamentary burgh of Ayr derives both from nature and from the general structure of the town, it may be inferred that it must maintain a high character for healthfulness. This is certainly true in reference both to the opulent classes and to artisans in comfortable circumstances; for a more favourable residence for rearing families of blooming robust children can scarcely be found anywhere than the temperate, dry, open, and clean town of Ayr, well supplied, as it is, with wholesome food, and abounding in means of salutary recreation. But the benefits thus held out to the more fortunate classes are to a great extent precluded from reaching the poor. In fact, poverty, when it attains to a certain pitch, seems to me to reduce all other predisposing causes of disease to insignificance in comparison with its direful influence. Scanty, uncertain, and innutritious food, insufficient clothing, squalor of person, incessant labour, sinking of the heart, cold lodgings, filthy beds, or harsh substitutes for beds, the atmosphere of their dwellings confined for the sake of warmth, and poisoned by too many breaths, or polluted by noxious exhalations, these hold the vital functions too rigidly and cruelly in their gripe to permit the more remote influences of climate to be in any appreciable degree effective either for good or for evil. As we have seen to what an extent pauperism prevails in Ayr, and what numbers of our industrious tradesmen in Newton and Wallacetown are constantly on the verge of destitution, we are at no loss to understand why our Parliamentary burgh, while it is a most healthy town to those who enjoy the means of obtaining health, should nevertheless abound more in the diseases of the poor than Kilmarnock and most other towns. There is no way of ascertaining with precision the amount of the population to which the dispensaries of Ayr and Kilmarnock extend their aid. Perhaps an approximation may be made from the number of deaths. If we suppose the deaths in the class of people who receive attendance from the dispensary surgeons to be 2·7 per cent., and if we add one half to the recorded deaths to cover the cases of infants which have been still-born, young children which have not been entered on the dispensary books, puerperal women who are not admitted as dispensary patients, old people who have gradually declined without receiving regular professional visits, and whose deaths have not been notified at the dispensary, sudden deaths, and other omissions, we will have the whole deaths as follows, viz.—

Average deaths in Ayr for last five years . . . 70·0

                  "          "          Kilmarnock for last five years 42·6

which at the rate 2·7 per cent. will give 2592 as the dispensary population of Ayr, Newton, and Wallacetown, and 1570 as the dispensary population of Kilmarnock; thus Ayr has fully double the dispensary population in proportion to its whole population that there is in Kilmarnock.

In my private practice I find consumption a much less prevalent disease in Ayr than in Kilmarnock, where I spent the first twelve years of my professional life. A few families have a strong hereditary predisposition to it, and amongst them it makes its ravages in spite of the climate; but, on the whole, it is a less frequent disease than either in the town of Kilmarnock or within the Kilmarnock district of medical practice. Even our dispensary patients present a much smaller amount of cases of phthisis than the dispensary patients of Kilmarnock. In Ayr, the number of dispensary cases of phthisis, on an average of the last five years, is exactly one per cent. of the whole cases of disease, whereas in Kilmarnock it is 2·18 per cent.; and if reliance can be placed on my estimate of the dispensary population of the two towns, it is only 0·24 of the dispensary population of Ayr, whilst it is 0·45 of the dispensary population of Kilmarnock. The same remark applies to scrofula. In Ayr, we have under this head, in the dispensary reports for the last five years, an average of 0·84 per cent. of the whole diseases treated, whereas in Kilmarnock, during the same period, the average is 1·82. This immunity does not, however, extend to rheumatism, which is also under the influence of climate, the ratio being 2·10 per cent., and in Kilmarnock only 1·81 per cent. of the diseases recorded at the dispensary. As I have for many years suffered from rheumatism, I can confirm, from my personal experience, the truth of this statement, for I find that the stormy weather of Ayr tortures me more than the foul air of Kilmarnock, although the health of my family, which was previously delicate, has been much improved since we shifted our residence to Ayr.

When small-pox, scarlatina, measles, and hooping-cough make their epidemic visitations, I believe they pervade equally all classes of our population—at least I am not aware that the poor are peculiarly liable to these diseases; although small-pox from neglect of vaccination, scarlatina, and measles, from the ardent spirits exhibited at their outset, and hooping-cough from exposure to cold, are no doubt more fatal with them than where proper medical treatment has been adopted. The same may be said of influenza, which in January and February, 1837, gave 65 dispensary cases. This disease was neither more prevalent nor more fatal amongst the poor than amongst the rich; and I believe a greater number of patients died during the succeeding winter of pulmonary disease originating in the influenza than

during the prevalence of the epidemic itself. This, perhaps, may have been partly occasioned by the local congestions accompanying the disease being overlooked, and attention paid too exclusively to the typhoid state of the constitution.

Cholera prevailed extensively in 1832; it commenced on July 20, and the last reported case occurred on October 29. The number of cases reported to the Board of Health was 439, and there were 191 deaths. It was confined principally to the poorer classes, and its great haunt was the Townhead of Ayr, probably because the poor in that quarter are more irregular in their habits than the industrious weavers on the north side of the river. In Kilmarnock it broke out on July 16, and continued till October 4, the number of recorded cases being 399, and of deaths 205. The deaths in both instances may be relied on, but I am aware that a considerable uncertainty exists in the recorded cases that recovered, in consequence of the different views taken by different medical men of the limit between diarrhoea and cholera.

But the disease which is the most formidable scourge of the poor is continued fever. Of this the town is never free, though it prevails to a much greater extent at one time than another: 1836, 37, 38, were severe fever years, the numbers of dispensary cases being in these years 222, 288, and 237 respectively, and the average mortality 9.6 per cent. In general, petechiæ could be discovered when attention was paid to that symptom. During the years 1839 and 1840 the numbers of cases were 96 and 124. In the course of the last five years these cases have occurred in the different quarters of the parliamentary burgh, nearly in the proportion of the dispensary population of those quarters; but in each successive year they seem to have selected a new focus. The total cases during that period in the burgh of Ayr have been 330, in Newton 257, and in Wallacetown 380, in all 967 in a population of 2592, so that in five years three-eighths of the poor have been attacked with fever. In 1836, there were 109 cases in Cross-street, Wallacetown; 73 in High-street and Townhead, Ayr, and 36 in Newton. In 1837, there were 101 in High-street and Townhead; 56 in Cross-street; and 35 in Newton. In 1838, there were 59 in Newton; 35 in Cross-street; and 32 in High-street and Townhead. At this moment it is raging chiefly in Newton-green, in which very few cases occurred during the previous years. It thus appears that, notwithstanding the great diversity in the nature of the abodes of the poor in regard to pure air, at least around the exterior of their houses, still fever does not give a preference to one locality over another, but searches out the destitute wherever they are to be found. The year 1836 was the commencement of severe depression in the muslin manufactures, so that hand-loom weavers and female sewers were reduced to extreme difficulties. Cross-street is the principal residence of these people, and accordingly Cross-street was the

great focus of fever in 1836. In the parish of Ayr a subscription was raised, and the weavers were all kept at their looms till they received work again from Glasgow and Paisley. In that year they were better off than the weavers of Wallacetown, and fever prevailed less in Townhead than in Cross-street. The low wages at which the weavers have been working to the manufacturers since 1836 have not proved sufficient to arrest the disease, and it has now visited each quarter of the town in its turn. We have seen that the portion of the High-street between the old bridge and Wallacetown is not only the most crowded part of Ayr, but it contains all the nuisances; yet fever has prevailed more at Townhead than in this part of High-street, and there have been very few cases of it in the neighbourhood of the slaughter-house, the churchyard, swinefield, and the stables and cowhouses in the narrow back alleys: the inhabitants of these places are in general not so poor as those of Townhead and Cross-street. Again, Cross-street is inhabited by colliers as well as weavers, the houses of the two classes are intermingled, the stench around the doors and the filth of the interior are as great amongst the colliers as amongst the weavers; but the colliers and their families live on a more nutritious diet than the weavers; and my talented friend, Mr. Gibson, who is surgeon to the coal works, informs me that while fever rages amongst the weavers; it is not by any means a prevalent disease with the colliers, although small pox and other epidemics are equally severe with both trades. This is not owing to the colliers being men of sounder constitutions than the weavers, for they are unhealthy looking, broken down by accidents, and whiskey, generally affected with chronic bronchitis, and on the whole short-lived. Their blood, however, is of a better crasis than that of the half-famished weavers, in consequence of their superior diet. In short, I cannot, from the investigation I have made into the localities and progression of fever, connect its ravages with the nuisances which are exterior to the houses of the poor. It seems to me to be the offspring of their poverty itself, which renders their constitution susceptible of attacks, especially when exposed to contagion. The progress the disease has made from place to place indicates the powerful operation of contagion as an exciting cause; whilst its selection principally, though by no means exclusively, of the poor, shows that poverty is the great predisposing cause. If, indeed, it were a demonstrated truth that fever never originates from any other cause than from putrid miasmata, or if it were even proved that this is its principal cause, then there could be no difficulty in accounting for each individual case that occurs, because there is no instance in which some matter in a state of corruption may not be found sufficiently near to the patient to satisfy a theorist. But if this is still an open question, as I conceive it to be, the evidence afforded by my investigation does not support the doctrine, that fever is the result of ex-

halations from nuisances, because the amount of fever does not bear a constant relation to the prevalence of the assigned cause. Instead of being excited by effluvia flowing from *dead* vegetable and animal matter in a state of corruption, it appears to me that there is stronger evidence in support of the opinion, that it arises from the morbid cutaneous and pulmonary exhalations of *living* bodies, either labouring under fever or rendered unsound by being suffused with filth, and respiring imperfectly in ill ventilated, crowded, nasty houses.

The poor are humanely attended, and their diseases skilfully treated by five dispensary surgeons, who divide the town into districts, and visit the patients in their own houses, and whatever medicines they prescribe are supplied by the dispensary apothecary. The expenses are defrayed by an annual subscription. There is also a small fund for supplying patients with food and clothes in extreme cases. The medicines last year only cost 22*l.* 11*s.*, and the clothes, &c., 8*l.* 17*s.* 6*d.* The surgeons receive a trifling sum, not as a remuneration for their services, but as a token of gratitude for the sacrifices they make for the good of the community, and the apothecary has a salary of 30*l.* The whole expenditure of last year was 106*l.* 5*s.* 2*d.* amongst 659 patients, or about 3*s.* each. The colliers are attended by Mr. Gibson, who receives a salary which the clerk retains from their wages. As there is, by a gross omission, no fund for supplying them with medicines, Mr. Gibson is often obliged to procure medicines for them, and for these he is seldom repaid.

I have thus arrived at the conclusion that fever amongst the poor is not so much to be attributed to the nuisances by which they are surrounded, and the filth of their houses, as to the innutritious diet and other hardships which result immediately from poverty itself. I am far however from maintaining that the former are not injurious to the health of the poor, or that they are unworthy of the consideration of a wise legislature. On the contrary, I know that they have a powerful influence in producing that cachectic state of the constitution which renders it prone to many fatal diseases, and I have no doubt to fever among the rest. I have prevailed upon delicate families to leave the vicinity of these nuisances, and the result has been a happy change in the state of their health. The blood requires the respiration of an uncontaminated atmosphere to maintain the body in a state of perfect health, and the less pure the inspired air the less perfectly will the blood perform its office. But we do not live upon air alone, and the most offensive air we ever breathe differs less from pure air, than innutritious and scanty food differs from a wholesome and sufficient diet. Whilst therefore the malaria of animal and vegetable matters in a state of corruption is unquestionably detrimental to the general health, I consider that its influence in predisposing the system to fever is utterly insignificant in com-

parison with the effects of protracted semi-starvation and the other evils which have poverty for their immediate source, nor do I conceive that it contains at all the specific morbid poison by which continued fever is excited, in the way that marsh miasmata contain the specific poison of intermittents. As, however, it is highly injurious to the general health, I most earnestly recommend that every practicable measure should be adopted for relieving the town from its influence. I would suggest that an effective body of scavengers should have charge of the streets throughout the whole of our parliamentary burgh; that the alleys and closes should receive as much of their attention as the open streets; that feeding pigs should be rigidly prohibited, because it is well known that a pig cannot be profitably fed by a poor person in a town by honest means; and the honest public have a right to see these animals, which are at once our greatest nuisance and our most extensive reseters of stolen goods, whipt forth of the town. All heaps of ashes and other offal found uncovered should be confiscated and carried off by the scavengers every week, and the booty will pay the expense of its removal. When water is brought to the town, there ought to be cocks paid for at the public expense, and accessible only to the scavengers in the streets and alleys which require washing. Attention ought to be paid to the levels of the streets, and they ought never to be higher than the ground floors of the houses. The streets of Newton and Wallacetown ought to be provided with open sewers to carry the water to the river; and if the houses were paved with tiles, the advantage would be unspeakable and the expense not great. The slaughter-house and the fish-market ought to be removed immediately from their present situations; and after the pigsties and heaps of ashes are abolished, the fresh breezes from the river will gain access to the back premises of the High-street; and the people will begin to pay attention to their gardens, and acquire a taste for neatness.

The above-mentioned improvements are perhaps within the reach of our civic authorities; but how is poverty, incomparably the most potent of all our pestiferous agents, to be banished from our town? Neither the fevers nor the wretchedness of the poor will suffer much abatement from the weekly visitations of scavengers, or of well meaning ladies distributing amongst them religious tracts or cheap copies of the Cottagers of Glenburnie, and impressing at the same time on their minds the importance of sobriety, industry, order, cleanliness, and piety. Something more palpable is necessary to meet the emergency; better food and more of it, better clothes, better beds, better houses, and less incessant toil; these are the essential prophylactics against fever for the poor. In order to obtain these, much larger sums of money in proportion to the number of the poor must be distributed than at present; and this can only be effected by one or

both of two expedients, the assessments must be increased, or the number of poor must be curtailed. I think both of these means ought to receive attention. Irish families, and other strangers who have no obvious resources for their support, ought to be prevented from settling in Ayr, by the rigid enforcement of an efficient law of settlement. In this way the number of the poor might be reduced so far that an increase of the assessment in Newton and Wallace-town, not greater than the community could bear, might afford the desired relief, whilst the resources of the parish of Ayr are already amply sufficient for those poor people whom it would then have to provide for. But unless Ayr receives some security against the introduction of destitute strangers, and such as are about to become destitute, the disadvantages of situation, from its accessibility to the Irish, are such that it will never cease to be kept at the lowest stage of poverty, and the augmentation of its charitable funds will only have the effect of increasing the numbers of the poor. With regard to the industrious poor, the hand-loom weavers ought to be discouraged from bringing up their children at the loom, now that the extensive introduction of machinery has reduced the trade to its lowest ebb. It is the poverty of the parents that obliges them to employ their sons in weaving, as early as their strength is sufficient for the work, and the practice cannot easily be checked, without either improving the circumstances of the parents, or giving the children some other profitable employment. It is, however, much to be lamented, for lasting poverty is thus entailed upon a new generation, for the sake of a temporary relief, and that of small amount.

A fever hospital is much wanted in Ayr. It is unnecessary for me to give reasons for a statement the truth of which is self evident; but I may add one reason to those which are derived from the advantages such an institution would confer, both on the poor themselves and on the community at large—viz. justice to the dispensary surgeons, who are constantly exposing their lives to hazard by visiting the infected hovels of their fever patients. I believe each of the present dispensary surgeons has caught fever in his labours of charity, and one very talented young gentleman lost his life from this cause not many years ago. It would not cost the public more money to have the patients promptly removed to a fever hospital, and treated there apart from their families, than it pays at present in consequence of the increased extension of the disease, and the necessity of the healthy members of a family devoting their time to attendance on the sick. The only difference is, that at present the funds are obtained principally from private charity of which no record is kept, whereas the hospital would require regular contributions methodically managed by a responsible body.

Ayr, February 16th, 1841.

JAMES SYM, M.D.

## No. 12.

## ON THE SANITARY CONDITION AND GENERAL ECONOMY OF THE TOWN AND NEIGHBOURHOOD OF LANARK.

BY JOHN GIBSON, ESQ., Surgeon.

GENTLEMEN,—I have, to the utmost of my ability, complied with your request in furnishing a Report as to the sanitary condition of the town and neighbourhood of Lanark, where I have resided for nearly 30 years, and I trust the following details will meet with your approval, and facilitate the important object which you have in view.

The parish of Lanark is bounded on the south and west by the River Clyde, on the east by the parish of Carstairs, and on the north by the parish of Carluke.

At the last census the population of the town was about 4500, and the town and parish nearly 8000.

The town of Lanark stands on a very elevated situation on the banks of the Clyde, about half a mile from the river on the north side. On the south side of the town, the ground declines toward the river, some places falling in gentle slopes, and some in steep declivities. The town is about 670 feet above the level of the sea, distant from Edinburgh 32 miles, from Glasgow 25, and from Stirling, 35.

Lanark, on account of the dry and elevated situation of the town, is celebrated as a remarkably healthy locality, and is very seldom visited by epidemical disease.

Fever sometimes visits the town and parish; the malady is usually confined to the working classes, but seldom prevails to an alarming extent. The localities where it makes its chief ravages are narrow courts, back lanes, and the houses of the poor, where provisions are scanty, and little attention is paid to ventilation and cleanliness.

This infectious disease is generally introduced by vagrants and beggars, and spreads in all directions among the inhabitants of these dirty and ill-ventilated houses, and many of the inmates fall victims to the malady; and the want of food, clothing, fuel and cleanliness, are the chief causes of the fatality of the disease.

I have often entreated the magistrates to interfere on behalf of these unfortunate creatures, but in vain; they always seem to consider every shilling spent upon necessaries for the poor as money thrown away; even money subscribed for the relief of poor families, and placed in the hands of the magistrates, is dealt out to the afflicted in gills and half gills of wine, because in this way it affords a greater profit to the bailie than if given in the larger quantity of a bottle at a time. The same conduct is observed in regard to