

# Report

ON THE

## HYGIENIC CONDITION OF THE MERCANTILE MARINE, AND ON THE PREVENTABLE DISEASES OF MERCHANT SEAMEN.

### OCEAN-GOING SHIPS (continued).

It is particularly important that the cause of scurvy should be defined as closely as possible; less, perhaps, for the benefit of the scientific than of the commercial community. Medical works on this subject are singularly few in quantity, and, sooth to say, in quality by no means rich. The names of Lind (who wrote in 1757), of Sir Gilbert Blane, and of Dr. Budd (late physician to the *Dreadnought*), include all authors whose books can be quoted authoritatively on this question; and there is no doubt that few writers on the scientific history of scurvy are likely to produce anything to equal in value the almost exhaustive particulars furnished to us by the last named author in the *Library of Medicine*. It is proper, however, that we should mention the valuable contributions of Dr. Barnes (who furnished an elaborate Report for the Medical Officer of the Privy Council in 1864); of Dr. Stephen Ward, physician to the *Dreadnought*, who has contributed many valuable annotations to the medical journals; and of Drs. Dickson, Buzzard, and Norman Chevers of Calcutta.

By a perusal of Dr. Budd's treatise, we learn "that the chief indications of scurvy are met with in the colour of the skin, the state of the gums, and in the presence of fibrinous effusions and of ecchymoses or effusions of blood. These effusions occur most frequently in the skin, the subcutaneous cellular tissue, between the muscles of the lower extremities and of the jaws, in the peritoneal coat, and in the muscular and mucous coats of the intestinal canal. The general paleness of the tissues shows that there is great deficiency of red particles in the blood; and the tendency to swoon, so constant in scurvy, is undoubtedly owing in some measure to this deficiency, though it is evident that diminished proportion of red particles, which is common to many diseases, is not the only nor the most important change of the blood in scurvy." In this is included all the physiology of the question as yet known; and the evidence of all the authors above quoted goes to prove that a want of vegetable diet is the chief, if not the sole, cause of scurvy.\* It is, in the present state of chemical and therapeutic knowledge, impossible to say what is the precise antiscorbutic ingredient necessary for the prevention of this disease. Garrod will tell us that it is potash; and John Morgan of Dublin maintains with great pertinacity that phosphorus is the elementary substance required. Be this as it may, all discussions thereon are so purely theoretical, that we continue to urge the use of a vegetable material which, by its natural combinations, has

\* We may here remark that the experience of Sir Edward Belcher (who, at the Society of Arts, on Wednesday, the 16th inst., emphatically declared wet clothes to be the sole cause of scurvy) is not in accordance with many facts enumerated by other commanders.

always proved eminently and entirely successful. It is now more than a century since Lind established the fact that lime- or lemon-juice, as a vegetable combination, could be confidently classed as, *par excellence*, the prophylactic agent for scurvy. Its use was commenced by Sir Gilbert Blane in our navy about seventy years ago, since which time the cases of scurvy treated in that service have been infinitesimally small; and it is now, with naval medical officers, practically classed as an unknown disease. It was, therefore, wisely enacted in the Merchant Shipping Act, that lime- or lemon-juice should be taken out for the crews of all ocean-going ships. No definite provisions are, however, made to ascertain the quality of this juice; and we are prepared to maintain from the following table (and other statistics from which these have been taken), that the want of good lime- or lemon-juice was distinctly the cause of scurvy in the vessels below mentioned.

Name of Ship.	No. of Hands (all told).	Cases of Scurvy.	Results of examination of Lime-juice.
Hermine .....	17	5	Sulphuric acid.
Merric England .....	29	10	Stinking.
Mary Fry .....	23	13	
Stirling Castle .....	32	6	Very weak.
Hoang-Ho .....	21	5	Acetic acid.
Blanche Moore .....	35	8	Nasty & nauseous.
Saint Andrew's Castle ..	19	7	Citric acid.
Tamerlane .....	21	4	Nauseous.
Marlborough .....	23	8	Very weak.
Galloway .....	29	6	Short allowance.
Tamar .....	17	2	Very weak.
French Empire .....	27	7 or 8	Citric acid.
Eaglet .....	14	3	Thick and nasty.
Geelong .....	14	9	Taken irregularly.
Thordean .....	35	2	Spilled. (Short supply of provisions.)

Taken from ships that, with others, have arrived in the port of London during the past two years with cases of scurvy.

Of direct causes, this is undoubtedly first and foremost; but of indirect causes we have a few words to say. Dirt, bad provisions, and any form of disease to which sailors, in common with other men, are subject, will predispose to scurvy. This cannot and should not be denied, though it affords to parsimonious captains a very large peg whereon to hang sundry invectives as to the cry lately made about the continued prevalence of this disease in the mercantile marine. Such captains, with pardonable ignorance, consider scurvy a form of venereal disease, give the wretched subject thereof mercury, and bring him into port ptysial as well as scorbutic.

But, if the sailor be subject to other diseases to which all flesh is heir, it is specially necessary that he be guarded from scurvy, which, superadded to any malady, will at once strike him off the roll of the ship's effective force. With a view to the eradication of this evil, a plan, with all working details, for the inspection of lime- and lemon-juice, has been submitted by the Seamen's Hospital Society to the Board of Trade, inexpensive in its working, and by no means embarrassing to the trade of our ports. Its action would be limited; for, by the tabular statement annexed below (which has been taken from *Dreadnought* statistics), it is shown that this inspection need apply only to ships proceeding to ports east of the Cape, the number of which that sailed from the port of London in 1865 being 671 only.

Year.	No. of cases of Scurvy admitted.	Of these, number from ports east of Cape.
1863 .....	86	75
1864 .....	83	66
1865 .....	102	92
1866 .....	101	83

By the terms of these regulations, the shipowner would be protected from fraud on the part of the provision merchant, and the sailor would have a

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material guarantee that wholesome juice was shipped for his use.

It has been often said that good lime-juice (which is better than lemon-juice) cannot be obtained in sufficient quantity for the supply of our mercantile marine; but we are advised, and that beyond all question, that the Messrs. Sturges of Birmingham, and Mr. R. W. Buchanan of Jamaica, who unitedly hold seven-eighths of all cultivated lime-groves in the West Indies, are perfectly able to supply all the juice that could possibly be required for the merchant navy of the United Kingdom; and that, too, at a cheaper rate than is paid in the city of London and other ports for very inferior stuff. We have been informed by the authorities at the Royal Victualling Yard, Deptford, that lime-juice was formerly procured from Jamaica for the use of the Royal Navy, but that the contracts were discontinued on account of the inferior quality supplied. We believe, however, that the estates from which this juice was procured have since changed hands; and are, moreover, assured by the medical officer of the *Dreadnought*, that Jamaica lime-juice is now exclusively used on board that ship; and that, after the lapse of eighteen months, its quality is excellent, even without the addition of spirit.

By the table above quoted, it will be seen that citric acid is greatly in favour as a convenient substitute for lime-juice. The opinion, that citric acid alone constituted the antiscorbutic property of lime- and lemon-juice, was held by many authorities some years ago; but recent facts have entirely obliterated this theory from the minds of practical men; and we are permitted in this place to quote the eminent authority of Dr. Bryson, Medical Director-General of the Navy; of Dr. Dickson, R.N., Medical Officer to Her Majesty's Customs; and of Drs. Barnes and Ward, physicians to the *Dreadnought*—all of whom are unanimous as to the comparative inutility of citric acid in the prevention of scurvy. It is, however, continually supplied in lieu of lime-juice by many provision merchants in our northern ports, particularly at Glasgow and Sunderland; and we are sorry to find that a little book by Mr. Spencer Wells, containing directions for the use of merchant captains at sea, should, even in the last edition, tend to perpetuate this mistake, by giving a very strong opinion in favour of the citric acid theory. We would not allow this to be a question about which doctors now differ; but, on any grounds, it is unwise to substitute a certain for an uncertain prophylactic or curative agent.

We must differ very decidedly from the opinion expressed by Sir Edward Belcher at the Society of Arts last week, that sulphuric and tartaric acids will cure scurvy; and subscribe to the rejoinder of Captain Toynbee, that the gallant admiral had probably, in the instances cited, made a mistake as to the disease for which he was prescribing.

Various aids to the prevention of scurvy will be spoken of in our *resumé* of general remedies. After this malady, the most undoubtedly preventable diseases that exist among our ocean-going seamen are syphilis, gonorrhœa, and their concomitants. By the assistance of Dr. Rooke, surgeon to the *Dreadnought*, we have had access to the surgical tables of that hospital; and Mr. R. J. Bedford, its assistant-surgeon, has also politely given us statistical aid. From these returns, we find that no fewer than 670 cases of venereal diseases were admitted during the past year. It would at present be almost impracticable to state exactly the proportion of seamen severally admitted from ocean-going ships and from coasters: but Dr. Rooke and Mr. Bedford agree that the majority of these

patients come from the former class of vessels. No further facts are required to show the importance of lessening this scourge to the mercantile marine. There is no doubt that patients so affected are thereby predisposed to scurvy; and, though this addendum is by no means a necessary result, the existence of the one, as we have already indicated, affords an excuse among masters and mates for the ravages of the other. There are one subordinate and two chief remedies for this special evil: (1) an inspection of the men at the shipping-offices, both at home and abroad, immediately before the commencement of the voyage; or (2) the application of the Contagious Diseases Act to all our maritime as well as garrison towns and districts, both in the United Kingdom and in the colonies. Of these chief remedies, the latter is, we think, decidedly preferable; for the former would, in all probability, be an excessively unpopular piece of legislation, though, if practicable, it would afford a great protection to shipowners in obtaining sound and healthy hands. A third and subordinate remedy is the emphatic insistence of Section 12 in a Notice of Examination of Masters, etc., issued by the Board of Trade in May 1866, which enjoins, among other requirements, that "he shall possess a knowledge of the measures for preventing and checking the outbreak of scurvy on board ship." (The importance of this section was urged by Dr. Dickson in his recent address to the Hunterian Society.) If to this section were added the words, "and also a general knowledge as to the treatment of venereal diseases," a great additional safeguard would exist both for master and seaman. Two interviews of instruction with some such official as an officer connected with the *Dreadnought*, or with any other practitioner equally familiar with sailors and the diseases above mentioned, would suffice; and a *Medical Manual for Ship Captains*, which we believe will shortly be published, will contain a *resumé* of the instructions received, with practical hints as to their application.

Rheumatism is a very common malady among seamen, and one, too, which is in a great measure preventable. About 160 cases are annually entered on the *Dreadnought* books, this number including acute and chronic varieties. The results of treatment are superlatively unsatisfactory; for, when the formidable symptoms have passed away, these patients linger long in hospital with stiff and painful joints, and are often of necessity sent away by no means well. Scurvy and syphilis are frequent forerunners of this malady, the obvious remedy for which is, on the part of the men, greater attention as to warm and dry clothing; and, on the part of the masters, the seeing that these precautions are properly taken.

Dysentery is endemic in India and China, and cannot, perhaps, be strictly classed as a preventable malady; but we are most fully persuaded that the lives of many sailors would be saved annually, if more care were taken at Calcutta, Hong Kong, and other Asiatic ports, in the matter of water for drinking purposes. The average number of cases admitted into the *Dreadnought* with dysentery year by year is seventy, and this disease stands third on the bill of mortality. Many marked improvements, however, have yet to be made in the condition of our mercantile marine before we shall persuade "Jack" to forsake the filthy mixtures of rum, arrack, and sangaree, that cause the drinking of bad water to bear such speedy and fatal fruit.

Delirium tremens should be mentioned as to some extent, though not exclusively, a nautical disease; but the remedy for this evil is beyond the efforts of any direct legislation.

We have now told of the preventable diseases that

particularly affect the crews of ocean-going ships, and have suggested special remedies appertaining thereto. But certain important alterations as to accommodation and provisions are required, which affect all sanitary conditions alike, and which must be made before the service is likely to become popular among British seamen.

The building of deck-houses should be encouraged; for though, in the case of emigrant and troop ships, they lessen the amount of space available for exercise, the comfort afforded to the crew will more than counterbalance this objection. A space of not less than fifteen superficial feet should be given to each man. As long as top-gallant forecastles are used, the hawse-holes and cables should be enclosed by scuppers and mangers, which Captain Toynbee and others affirm to be a simple and inexpensive proceeding. When the bulkhead is put up, care should be taken to leave certain openings at the upper part, which could be closed, if necessary, in wet weather. If, then, a short moveable cowl were fixed in the top-gallant forecastle near the bows, and made to communicate directly with the men's quarters below, a very fair amount of ventilation would be the result. The hatchways should be widened, and block glass skylights let into the deck at various parts.

The scale of provisions requires many items of reform, and this scale should be fixed by law. We were told some months ago by a well-known captain in Messrs. Green's service, that a mixed or varied diet would cost less than that now in use, and be equally convenient for stowage. Such a diet scale should contain good preserved vegetables of several kinds, and preserved meats and pickles in addition to most of the staple articles now supplied. The "grog" question has excited much discussion, and many reformers are strongly against its use. But the most powerful argument in its favour exists in the fact, that in the best ships, where scurvy is unknown and the crew commonly arrive in port well and strong, the "tot" of grog is regularly given and taken;\* and we may, too, cite the valuable opinion of Dr. Dickson in favour of its adoption in the scale of diet, though the lime-juice, if mixed according to the plan proposed, would contain a small proportion (from 10 to 15 per cent.) of rum or brandy. The daily quantity of lime-juice issued should be increased from half an ounce to one ounce per man, and it would be a vast benefit if the crew could be seen to drink it; albeit, the alcoholic flavour, though mild, would doubtless serve as a sufficient inducement.

Various arrangements as to wages might be made, and additional advantages be offered by savings banks; but these are points scarcely within our province, and they have been very ably discussed elsewhere.

The rise and progress of Sailors' Homes must, however, receive honourable mention; and we are greatly indebted to the courtesy of Admiral W. H. Hall, C.B., for particulars as to these very admirable institutions. There are at present but two Sailors' Homes in London—that in Well Street, founded by the late Commodore Elliott, R.N., in 1827; and one in the East India Road (commonly called Green's Home), and built by the late Mr. Richard Green in 1841. Eighteen other establishments of this kind now exist in various parts of the United Kingdom, all of which are chiefly indebted for their origin to the exertions of the gallant admiral. Seven homes have been also established abroad, at Calcutta, Madras, Bombay,

Shanghai, Hong Kong, Mauritius, and the Cape. The sanitary and moral benefits derived from these institutions cannot be exaggerated; and, as it is pleasing to end a somewhat gloomy sketch with so bright an account of good things that are, so, as we have endeavoured temperately to point out the things that should be, it is markedly the duty (and as surely the interest) of our shipowners to assist in the creation of changes that must tend to establish yet more firmly the commercial prestige of the British empire.

## NAVAL MEDICAL CADETS.

(From the Army and Navy Gazette.)

WE transferred to our pages last Saturday from those of the BRITISH MEDICAL JOURNAL a statement that the Admiralty is about to establish an order of medical cadets, by lending the sum of £2 sterling a week, through the last year of study, to medical students who have completed three years at the medical colleges, and who for that small consideration are willing to bind themselves to serve ten years in the Royal Navy, under personal penalty of £250, and two sureties of £100 each, to fulfil their contract; and also to repay this advance, in the event of their incapacity to pass the examinations required for registration as medical men, without which they cannot be employed to treat the sick anywhere.

We are compelled to receive this on the authority of our respected cotemporary, although, for ourselves, we conceive that such a scheme might justly be taken as presumptive evidence of the insanity of its proposers; for it could scarcely be seriously entertained that from all the medical schools in Great Britain and Ireland there would be drawn enough men to fill up the existing gaps in the department, who, having entered on the profession with consent of their friends and guardians, are reduced to such straits by three years' college expenses, that, in order to complete their college career, and enter the portals of their selected profession, they must accept the eleemosynary aid of £2 a week, and, before their true professional prospects have dawned, sell their personal freedom for the brightest ten years of their lives. We would simply reply—Highly improbable.

Again, if there be such an abundance of poor youths among medical students, we would ask, Is it likely that after subsisting through a year on this allowance, they will be able to refund it when their misfortunes have been climaxed by rejection at the colleges? Better far that they and their sureties should expend the promised penalties on the fourth year's education than abide such chances of bondage. We are not surprised that the mere intimation of such a scheme has aroused the indignation of the London schools, and that meetings have been held to discuss its bearings, of which the most dangerous yet suggested is, that in this plausible way the Government, bent on not paying the English valuation of medical talent, will rather have recourse to the foreign markets, advertising there for candidates for her Britannic Majesty's service who may be introduced to the army and navy after twelve months' residence in England at the public expense, legalised by that questionable resolution of the General Medical Council held in London last year, "to register foreign medical practitioners after a year's residence in Great Britain", which resolution, we are told, was mainly prompted by governmental agencies. We give this for what it is worth, as the medical view of the case, and not as our own view, because we cannot bring ourselves to credit what is so very impro-

\* A very intelligent old sailor, whom we saw last year in the *Dreadnought*, laid up with a fourth attack of scurvy, remarked that, having sailed in all lines of long-voyage ships, he never had this disease in vessels where grog was given to the crew.

bable in a service sense. The Admiralty educates for other departments of the service—executive, navigating, financial, or engineering, paying during the existence of the pupilage, and not binding, in those cases, to a ten years' servitude; and we doubt, altogether, that it would enter on an education scheme for the medical department in any other fashion. It is quite impossible for us to imagine for one moment that any Government board can have serious hopes that the medical profession will ever consent to submit to the same "continuous service" rules as apply to seamen and soldiers. Perhaps it may be reckoned that foreigners accustomed to a paternal despotism would regard this in a totally different light from Englishmen. We cannot believe that the rumour which has now been prevalent for some time to the effect that foreign medical students are to be invited to enter our service is correct—this would be free trade and something more in earnest.

### MEETINGS AT THE HOSPITALS.

#### UNIVERSITY COLLEGE HOSPITAL.

At a numerous meeting of the Junior Medical Society of London held at University College Hospital, at which representatives were present from all the hospitals in London, Mr. Langmore, senior house-surgeon to the hospital, in the chair, the following resolution was proposed by Mr. Alchin in a vigorous speech, seconded by Mr. Hurlstone, and carried unanimously:—"That this meeting views with dissatisfaction the proposal of the Admiralty, as reported in the *BRITISH MEDICAL JOURNAL*, of January 12th, to subsidise medical students of three years' standing, until they have become qualified practitioners, on their entering into a bond to serve in the navy for ten years. It believes this to be likely to bring discredit on the whole profession, inasmuch as the standard of the naval medical service, far from being raised by it, would be considerably lowered by the class of men that such an inducement would be likely to bring into it." After some warm expressions on the subject from other students of the College, the meeting proceeded to the discussion of other subjects.

#### ST. BARTHOLOMEW'S HOSPITAL.

A *SIMILAE* meeting is being held at St. Bartholomew's Hospital at the time of our going to press. The resolutions passed have not yet reached us.

#### ST. MARY'S HOSPITAL.

At a meeting held at St. Mary's Hospital, on Wednesday, Jan. 23rd, Mr. J. G. Anderson in the chair, it was proposed by Mr. De la Ferté, seconded by Mr. Brocklesby, and carried unanimously:—"That this meeting views with feelings of indignation the late proposal of the Admiralty Board, announced in the *BRITISH MEDICAL JOURNAL* of Jan. 12th, to obtain medical officers for the Navy under a system of maintaining medical students during the fourth year of their hospital studies, whereby the class of candidates would naturally be drawn, not from those who were competent to undertake the duties, and who would be

likely to raise the status of that branch of the service, but from those who, under pressure of pecuniary circumstances, would adopt a vocation not altogether in accordance with their desires or their capabilities."

#### WESTMINSTER HOSPITAL.

WE are informed that, at a preliminary meeting of the students of this hospital, on Wednesday, January 23rd, a strong feeling was expressed against the Admiralty proposals for the bounty to senior students above referred to; and a meeting of the whole school will be shortly held for the purpose of passing formal resolutions on the subject.

### THE SANITARY STATE OF CARNARVON.

CARNARVON has recently gained for itself an unenviable notoriety for dirt, disease, and death. This has not been for want of reiterated warnings.

Carnarvon is situated at the mouth of the River Sciout, which here falls into the Menai Straits; and, from its geographical position, ought to be classed amongst the healthiest towns of the United Kingdom. Formerly, it stood high in this respect. In Lewis's *Topographical Dictionary*, the account given is, that "the salubrity of the air, the convenience of its situation for sea-bathing, and the beautiful scenery of the neighbourhood, have made this town the permanent residence of numerous respectable families, and the frequent resort of visitors." This was the town of twenty years ago. Dr. Seaton, the medical inspector who was sent lately down by the Privy Council to inquire into the prevalence of the cholera there, says: "In Carnarvon there exists everything that should invite and give intensity to an outbreak of cholera or any other infectious or epidemic disease: great overcrowding, and bad house-construction; bad water-supply; bad drainage; absence of privy accommodation; accumulation of surface nuisances."

Notwithstanding that it possessed all the elements of filth, and defilement of soil, air, and water, which could invite cholera, Carnarvon seems to have escaped any visitation during the summer. This immunity seems to have had the effect of determining the authorities not to do anything, and to pay no heed to the warnings which the Mayor, as the head of the sanitary authority of the town, had not ceased to give. On the members of the Town Council must rest the blame which recent events cast upon the Board of Health of Carnarvon, of allowing filth to remain, and overcrowding to flourish. "Having for many years publicly denounced the mode in which too many of the poor were housed," writes the Mayor of Carnarvon, "I felt it my duty, on the approach of cholera from the East, to draw attention to the subject in the following language. 'The immorality, disease, and death caused by the terrible overcrowding of our fellow-men is fearful to contemplate; and, if something be not speedily done to find proper habitation for the poor beyond the present densely crowded limits, and to close numbers of those indescribably disgusting places miscalled houses, and to bring a proper supply of water to the people, that fearful scourge, which is gradually but certainly approaching our shores, will as certainly desolate this town. Let us not deceive ourselves as to its pro-

bable ravages by a reference to former years, when the population was far below its present number, and the undrained ground of courts had not been saturated with the filth of so many years and so many additional people. I speak from personal inspection, in which many of you were with me, when I state that nothing short of removing the inhabitants of these places will prevent the catastrophe to which I have pointed."

The prophecy was fulfilled, for cholera has raged in Carnarvon with unusual virulence, and that, too, at a time of the year when the town, having thitherto escaped, might with some confidence have expected to continue free. On October 5th, as we gather from Dr. Seaton's report, the first death from diarrhoeal disease was registered. This was a child; and no suspicion appears to have attached to the diarrhoea of its being choleraic. On the 17th, another child's death was registered, and from cholera. The next death which took place was on November 7th; but, though this last case was looked upon as being one of unmistakable epidemic cholera, the next death did not occur until the 20th, and then the pestilence, which had been smouldering for some weeks, appears to have been suddenly fanned into a flame, which burst out with alarming intensity, and carried off many victims.

The following are the weekly particulars of the cases and deaths.

Week ending	Cases.	Deaths.
November 24th, 1866 .....	49.....	6
December 1st .....	271.....	13
" 8th .....	120.....	9
" 15th .....	76.....	15
" 22nd .....	145.....	17
" 29th .....	182.....	13
January 5th, 1867 .....	91.....	5
" 15th .....	55.....	3

Making a total of 989 cases and 81 deaths.

This lamentable sickness and loss of life might, in great measure, if not altogether, have been prevented had the remonstrances which were continually being uttered against bad sanitary conditions been regarded; and we sincerely hope that the Carnarvon authorities will strive to the utmost to cleanse their town, and so remove the stigma which has most deservedly been cast upon it; and we also trust that the committees which, as stated in a local journal, will sit daily, will soon have caused to be removed all of the nuisances which Dr. Seaton found so abundantly to exist in Carnarvon, and which are too numerous for us to point to separately. We further hope that the sanitary guardians of the town will not again slumber for a period of four months (as they are reported to have done), to be awakened to activity by a calamity similar to that which we have been chronicling.

The water supply has, we believe, received practical attention from the local authority; one great cause of disease in the town will thus soon be removed; and this link of the chain of sanitary work being formed, the authorities will be enabled to cause the erection of water-closets where no such accommodation exists, and to change the scanty and often miserable privies into numerous and decent places of convenience.

There is one matter upon which we would, in concluding our article, offer a few remarks—a matter which is not under the control of the sanitary authorities—and that is, the question of finding houses fit for the reception of the workers of Carnarvon and their families.

With the view of remedying the evils which exist in that town, as elsewhere, the Mayor of Carnarvon has issued an address to the owners of prop-

erty in and adjoining Carnarvon, calling their attention to the overcrowding which exists in the town, and the unfitness of many of the dwellings for human habitation. The Mayor states "that for a period of about twenty-five years not a house could be erected for the extension of the town in any direction"; and he also gives it as his opinion, that the building by the landowners of houses for the labouring population is a work which "will handsomely repay them for the outlay"; and as a proof of the correctness of this opinion, he points to the good which has resulted from the erection on Lord Penrhyn's estate near Bangor of decent cottages for the workpeople.

We echo the hope which the Mayor expresses, "that similar erections may be built at Carnarvon"; for it is an undeniable fact, that overcrowding is the root of most sanitary evils, and tends to an immense extent to undermine the moral tone and habits of the labouring classes in those places where it is allowed to exist.

The clerk to the Carnarvon Board of Guardians has sent to the public journals a letter received from the Medical Officers of Health, stating that their services are no longer necessary. We trust that, by a judicious and ever watchful observance of all sanitary matters, epidemic sickness will in the future be prevented; for this purpose constant sanitary supervision by a medical officer of health is necessary.

**BEQUESTS.** A legacy of £500 has been received by St. Mary's Hospital from Miss Payne. The executor, Mr. Rayner, surgeon, of Uxbridge, has, in accordance with the custom of the hospital, been made an honorary governor.

**UNIVERSITY OF CAMBRIDGE.** The Professor of Anatomy gives notice, that his course of lectures will be continued on Tuesday, January 29th, and on the succeeding Tuesdays, Thursdays, and Saturdays, during the term. There will be anatomical demonstrations and examinations on Mondays, Wednesdays, and Fridays, commencing January 30th, also microscopical demonstrations on alternate Mondays, at 7 P.M., commencing February 4th.

**PERSONAL BRAVERY.** During the sad accident at the Regent's Park last week, Mr. Ernest Copland, a student at the London Hospital, saved the lives of three children, at the imminent risk of his own. On Wednesday, the 23rd inst., a numerous attended meeting was held at the London Hospital Medical College, at which nearly the whole of the hospital staff and students were present. Dr. Herbert Davies was elected to the chair. The chairman explained that a wish was very generally entertained that the brave and humane conduct of Mr. E. O. Copland in the Regent's Park accident should not be passed over without notice. Dr. Andrew Clark said that this was not merely a students' question, but that Mr. Copland's bravery reflected credit upon his school and hospital. Mr. W. Nixon, the secretary of the hospital, expressed a similar feeling on behalf of the house committee. The following resolution was carried unanimously:—"That this meeting highly approves the gallant conduct of Mr. Copland, in rescuing three children on the occasion of the recent calamity in the Regent's Park; and feeling that he has reflected great credit to the medical school to which he belongs, desires to present him with some testimonial of its appreciation of his noble action." A further resolution, appointing a committee to receive subscriptions, and to decide upon the form the testimonial should assume, was also passed. We understand that a considerable sum was collected in the room.