

AN ADDRESS

DELIVERED TO THE GRADUATES

ADMITTED AT THE CONVOCATION OF THE SENATE

OF THE

UNIVERSITY OF MADRAS,

HELD ON MONDAY, APRIL 5, 1878.

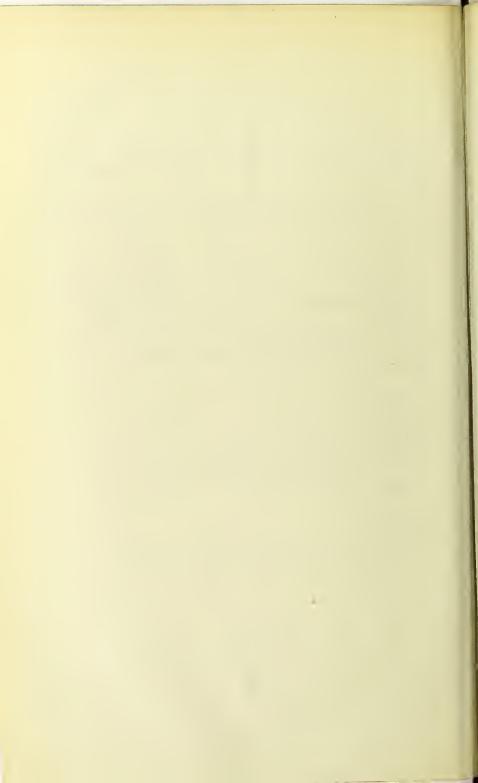
BY M. G. FURNELL, ESQ., M.D., F.R.C.S.,

SURGEON-MAJOR, AND PRINCIPAL, MEDICAL COLLEGE. FELLOW OF THE UNIVERSITY OF MADRAS.

(Printed at the request of the Senate.)

Dadras:

PRINTED AT THE LAWRENCE ASYLUM PRESS, MOUNT ROAD, BY W. H. MOORE. I 878.



ADDRESS.

My LORD DUKE, MR. VICE-CHANCELLOR AND GENTLEMEN,

"Salus populi est suprema lex."

It is customary to close this interesting Convocation at the Madras University with an address from one of its Fellows, and we owe it to the practical sagacity of our most noble and distinguished Chancellor, of which since his advent to power over us we have had so many examples, that on this occasion it is delivered by a Physician. You can well believe me when I say that when I remembered the many eloquent orations that have been heard on those occasions, especially from members of the Bar, whose vocation it is to speak, and speak well, I might, and did shrink from accepting the role of Public Orator. Yet when the reason of the choice was made plain to me, that each profession, especially of those engaged in teaching the youths of this country, should, in turn, say what it had to say on Education,-given as it were its "raison d'être," I hesitated no longer.

It is befitting that on this the first day of our assembly in this Hall, I should congratulate the Senate of this University in having, at last, found a home worthy of its reputation, in a Temple erected by one of its Fellows, which adds to the list of magnificent edifices by which he has gradually changed the features of our city; and, although some of us who have gazed upon the Taj could wish, at the risk of being deemed hypercritical, that the domes of this building partook somewhat more of the aerial gracefulness of those seen in that marvellous structurerevealed more of themselves and less of their supporting columns-yet must we give our unqualified admiration of the rest of this beautiful building, and especially of the noble room wherein we are now assembled. I have been long enough in Madras to remember what the style of our public buildings was before Mr. Chisholm came amongst us, and when we contrast this Senate House, the Presidency College, and the Railway Station, to say nothing of other buildings, with the old stereotyped structures of the Department Public Works, the Madras University may well be proud that one of its Fellows has added so much to his own and their reputation by his beautiful science.

And the situation of this building seems to me so happily chosen, so full of the highest auguries. It is almost the first, if not the very first, building of any consequence in this continent which catches the

[4]

rays of the rising sun, as if Southern India greeted the Glorious God of day—fabled also of old as the God of Learning—with a building consecrated to his beloved pursuits. Let us hope the influence of this University may be as beneficent and lasting, and that, like the luminary whose advent it daily greets, it may shed a never-failing stream of intellectual light over the land, chasing away the darkness of ignorance and superstition.

Some twenty years ago when this University was first called into existence, and for years after, it was customary on these occasions to hold forth on the advantages and delights of learning as an inducement to the youths of this country to come forward and fill our Colleges. To do so now would be, I feel, an act of supererogation. There is no need for us now to go into the bye-ways and hedges for guests to fill our banquets. Each year sees an everincreasing number of candidates for matriculation and graduation in Arts, but I fail to notice any increase for degrees in medicine-a matter, I see, on which our gallant and respected Director of Public Instruction touched upon in his address last year. In twenty years the faculty of medicine has produced three Doctors, half a dozen Bachelors, and one Licentiate in a population numbering some 50,000,000 of people! Some future Historian looking at these figures might jump at the conclusion that this continent, during the commencement of the 19th century, was singularly fortunate as regards health, and that the fell pestilences which in some other parts of the world proved so disastrous, were here unknown. Yet what a fallacy such a conclusion would be! As the Principal of the Medical College, this fact is of singular interest to me, and it has often been present to my mind, not only that the number of Native students who presented themselves to study medicine, apart from those entering the service of Government, was singularly small, but that the Brahmins practically held altogether aloof. What was the cause of this?

If we turn to the ancient History of India, we find that medicine, far from being a despised science, was one of the most honoured. Next to the vocation of Priest, that of the Doctor seems to have been the most respected. Nay, I am not sure it was, in the most ancient times, second even to that of the priest, for I find in your ancient books that one of the fourteen "ratnas" or precious objects which the gods produced by churning the ocean after the deluge was a "Learned Physician." In the Mahabharata is an account of this ocean churning for the recovery of lost treasures, and the one most desired and sought for was the Ambrosia which confers life and health.

"The gods had failed, but when Ananta, the Serpent King, bid the great snake Vasaki wind himself as a churning cord around the mountain Mandara, all the gods pulled vigorously at the living cord, until from the agitated floods uprose the Moon, and the Goddess Lakshmi; the white Horse and the wonderful gem called Kaustubba;

> And lastly from the troubled waves, Amidst the glorious cheering, Up rose Dhanwantani the sage, The lost Ambrosia bearing.

This was the famous Physician, bearing in his hand a white jug containing the coveted Ambrosia.*'' This Dhanwantari is said by some to have obtained the Ayur Veda—the ancient medical record of the Hindoos—from Brahma direct, by others to have been instructed in its mysteries by Indra, the God of Heaven, where Dhanwantari practised medicine with great success. But witnessing the ignorance and misery of mankind, he descended upon earth to cure their maladies and to instruct them in the means of preventing as well as curing diseases. This Dhanwantari became King of Kasi or Benares, the most holy city of the Hindoos—a city well worth

* Hindu System of Medicine by T. A. Wise.

the pilgrimage of any one, Hindoo or English, merely to gaze upon. Here he became so famous from his many cures, that, at last, a deputation of divine sages, or Munis, waited upon him to petition instruction in the divine art of Medicine. "Deign Sovereign ruler," these sages thus addressed Dhanwantari, "to bestow upon us the power of preventing and curing the many diseases under which mankind are suffering, afflicting their bodies, tormenting their minds, and which, with the numerous accidental and natural diseases, distress them so much that they seem to be without friends. We pray that you will bestow upon us a work to instruct us in the causes, the nature and cure of diseases : for retaining health and for promoting the welfare of the soul in another world Like scholars we come to receive the information from you."

The King-Doctor's answer was favorable. "Your wishes shall be granted," replied Dhanwantari, and one of the sages, Sasruta, son of Visamitra, a contemporary of Rama, was chosen to be the person to be instructed in medicine. The Book which Sasruta, from the dictation of Dhanwantari compiled, was an abridgement of the Ayur-Veda, that itself being far too voluminous and heavenly for the present degenerate race of mankind : but if I understand my authorities correctly, Sasruta's work is still preserved, and is still a

high authority among good Hindoos. I will not take up your time in describing the work at any length, but I wish to draw your attention to this curious fact, that the 3rd Book treats of Anatomy and gives a description of the body, and I learn from it that your present prejudice against dissection had no existence in those good old times when kings and sages were doctors. Sasruta, enjoins that "the "teacher shall seek to perfect his pupil by the ap-"plication of all expedients which he may think cal-"culated to effect his proficiency," and he gives directions for the use of instruments. Again he writes : "Those men who, in ignorance of the hu-"man frame, venture to make it the subject of their "experiments are the murderers of their species." Charaka, who in the opinion of some is even more ancient than Sasruta, writes : "A Practitioner should "know all the parts of a body, both external and "internal! and their relative positions with regard "to each other; without such knowledge he cannot "be a proper practitioner." What says Menu your great Lawgiver : "Should a Brahmin touch a fresh "human bone, he is purified by bathing, and if it be "dry, by stroking a cow, or looking at the sun, " having sprinkled his mouth duly with water." It is evident the great lawgiver passed no prohibition on the matter. I find also that in Bengal the opinion of learned Pundits was given on this point in Lord William Bentinck's time, and the Shastras made to declare that "Dissection was permissible "to a Brahmin seeking Medical knowledge."

My own opinion had always been that this was the insuperable bar to the study of our Western Science of Medicine by good caste Hindoos, and I had commenced some time ago a paper on this subject for submission to Government, recommending that Brahmins wishing to study 'Medicine might be excused the study of Practical Anatomy. And yet it would seem that your holy Vedas hold no such prohibition, and that this, like many other superstitions -and I use the word with all respect-has grown up in these later and more degenerate days of your religion. What a strange subject this for reflection that we who pride ourselves in having guite lately overcome this prejudice of humanity-for it is only in the commencement of this present century the study of Anatomy has become legal in Great Britain-should have been anticipated by natives of this country some three or four hundred years ago, and that I, a humble representative of the Western Aryan races, should stand here trying to persuade you to go back to your old ways of knowledge! Verily! Verily!! saith the Prophet, "The thing that hath been, is that which shall be; and that which

[11]

is done that which shall be done; and there is no new thing under the sun."

But we are not obliged to trust merely to the fable legends of Hindoo Mythology for the assertion that medicine in this country is an old and honored science. When the Greeks came to India with Alexander, they found amongst the traces of civilization, which raised their astonishment and admiration, the practice of medicine far advanced. Thus Arrian informs us, "The Grecian Physicians found no remedy against the bites of snakes; but the Indians cured those who happened to fall under that misfortune." And again Nearchus informs us, "Alexander, having all the most skilful Indian Physicians about his person, caused proclamation to be made throughout the camp, that whoever might be bitten by one of these snakes should forthwith repair to the Royal Pavillion to be cured." This was 300 years before Christ, and now in 1878, more than 2,000 years after, we have the Government of India and Dr. Shortt vainly offering a reward for the precious but lost knowledge! These Physicians are also said to have made other cures. "If any among them feel themselves much indisposed," says Nearchus, "they apply to their Brahmins, who, by wonderful and even more than human means, cure whatever will admit of it."

[12]

Not only did the Greeks derive much information direct, during Alexander and his successor's invasion of India, but from the Egyptians subsequently, and they owed their knowledge to some mysterious nation of the East, India no doubt. But our indebtedness to India can be more directly traced somewhat later. When Bagdad, under the Caliphs after the destruction of Alexandria, became the great seat of learning, medicine was cultivated with much diligence and success. Hindoo Physicians were invited to settle in Arabia, and the works of Charaka, Sasruta and the treatise called Nidana were translated and studied by the Arabians in the days of Harun and Mansur, A. D. 773. With the great wave of Mussulman conquest which spread along the shores of the Mediterranean, Medicine and Mathematics were brought by the Arabians to Spain and found a congenial home in the Saracenic Colleges of the Iberian Peninsula. The Arabians were not only great Physicians, but famous alchemists, and to their teachings we owe the foundations of those sciences which have now grown to the fair dimensions of Modern Medicine and Chemistry.* They seem, however, to have neglected anatomy, and were more particularly famous for the introduc-

^{*} It has been said, "Whilst the Byzantines obliterated science in Theology, the Saracens illuminated it by medicine." (Draper.)

[13]

tion of numerous Oriental remedies. Rhubarb, Tamarinds, Cassia, Senna, Camphor and various other gums, which, as they are entirely the products of Asia, fully attest that their knowledge of remedial measures came from the East.

And what is this art of Medicine, for the study of which your ancestors in far off times were so famous ? Which your heroes and your gods cultivated so assiduously, but you deem beneath your notice? It is, I think, one of the fairest and most entrancing of the pursuits which can occupy man's time. The sciences allied to Medicine-Anatomy, Physiology, Chemistry and Botany-are of endless interest and beauty, and for this reason, that the laws which they disclose are the laws of Nature; and the crowning studies of Medicine and Surgery, which they lead up to, are they not equally interesting? They bring comfort and assistance, after restored health and strength, to suffering thousands of our fellow-creatures; and the laws of one, if properly understood and applied, are capable of saving whole nations from epidemics more devastating far than the most fatal wars. Jenner's discovery of vaccination alone, has saved more lives than even the victories of Genghis Khan, aye twenty Genghis Khans, have deprived the world of; and chloroform has assuaged

 $\begin{bmatrix} 14 \end{bmatrix}$

more pain than perhaps even the cruel Spanish Inquisition ever inflicted.

I am not romancing. I am making, I believe, no tropes or figures of speech, but talking plain facts. I could cull from history examples without number of fair cities and even provinces destroyed and blotted out, from man's ignorance or neglect of what are now the most obvious hygienic law. Turn to the history of the Middle Ages, and we find one succession of famines and pestilences, pestilences and famines, sweeping over Europe. Come down to times nearer, we find in 1656, 240,000 people were destroyed by a pestilence in Naples alone, and upwards of 400,000 perished in the Neapolitan territories, a comparatively small place. In 1663, pestilence prevailed throughout England, culminating in the great plague which carried off hundreds of thousands until the fire of London, by destroying the dirty, ill-drained, and badly ventilated houses, put an end to the pestilence. Now what was the state of things then existing? The celebrated and learned Erasmus, not very long before, in a letter to a physician of Cardinal Wolsey, says of Englishmen, "There is a degree of uncleanliness and even filth "of which I could have formed no conception. The "floors of the houses are commonly of clay, strew-"ed with rushes which are occasionally removed,

[15]

"but underneath lies unmolested an ancient collec-"tion of beer, grease, fragments of fish, spittle, "excrement of dogs, cats and everything that was "nasty." Was it any wonder we had pestilence and plagues? London of the present day is most probably 30 or 40 times the size it was then, containing nearly 4,000,000 of people, but it is now one of the healthiest cities of the world, and why? Simply because the people have learnt to wash, drain their houses and streets, and use comparatively pure water, for much remains to be done even now. But a wise regard for sanitation has borne ample fruit even of late years; and great epidemics, such as at one time it was periodically visited withand which were ascribed to the direct manifestation of divine wrath-have practically disappeared.

Am I wrong in saying that a state of things very much as described by Erasmus, if not worse, obtains amongst the dwelling places of many of your towns, and bears practically the same fruit? Need we be astonished at our recurring epidemics of Fever, Dysentery and Cholera? Take this very plague cholera, with which we are so familiar, for is not India its home? It is one of those pestilences, bred of filth and dirt, which should disappear from amongst us. Already is it beginning to shew chinks in its armour and has ceased to be the

[16]

dread, mysterious, unknown, and unconquerable enemy it was in my early days; before which man had nothing to do, but to fling down his arms in abject terror and despair, and pray piteously to an avenging God to pardon him his sins, and avert the dread punishment he had so richly merited ! Bold Science—not impious,—far from it, bold only in its determined search for truth, and modest ever—has pushed home some searching questions concerning water contamination, and infection of different sorts, which begin to throw much light on its diffusion, and will, before long, I think, make cholera visitations in India as few and far between as they are now in Europe.

These are the fair realms of study and usefulness medicine opens up to you. She has to do with every thing that concerns man's material comfort and safety, not only to cure but to prevent disease, and thus the very elements form subjects of its investigation. Your ancestors here again seem to me to have forestalled modern civilization. Pure water enough and ample enough for all man's wants, is the great cry now of our large cities in Europe, thanks to the teachings of Modern Hygiene. If I am not mistaken, your ancestors, especially the Brahmins, had grasped this fact ages ago. The careful preservation of their own wells and tanks from contact

by inferior and unclean castes, the scrupulous cleanliness of the vessels used in carrying and preserving water, and the habit of frequent bathing enjoined as a religious observance, all demonstrate the great value your forefathers attached to supplies of pure water. And now science, with its chemical tests and the Microscope, demonstrates as clearly as any problem in Euclid can be demonstrated,-that in impure water lie the contaminating germs of fevers, cholera, dysentery and other diseases. Unfortunately, you have, at least many of you, long lost the value of this wisdom, and not only are your wells in many places less scrupulously clean, but your habits in all large religious gatherings of contaminating the streams and water-supplies, tends in this hot climate to originate and spread the dreadful epidemics for which India is so famous.*

* Since these remarks on water were written appeared the following para in the Overland Mail of February 22 :---

"The Prince of Wales has addressed the following letter to the Chairman of the Council of the Society of Arts :---

'Sir—The supply of pure water to the population is at the present time exciting deep interest throughout the country. Our great cities and populous towns, such as Manchester, Liverpool, Birmingham, and others, are, each for itself, taking steps to obtain an improved and increased supply, while the metropolis is seeking further powers from the Legislature with the same object in view. The smaller towns and villages are dependent on accidental sources of supply, and in many instances these are wholly inade-

[18]

Air as well as water falls under the immediate attention of the Physician. It is more essential even that man should have pure air to breathe than pure water to drink. Floating in the atmosphere are myriads of contaminating germs against which knowledge may defend us; and simple contrivances of admission or exclusion of certain winds may make all the difference in this country of health or sickness in a household.

quate for health and comfort ; while the larger populations are striving, each independently and at enormous cost, to secure for themselves this article of prime necessity, the smaller localities must make the best shift they can, and in many instances are all but without supply at all. Under these circumstances, I would draw the attention of the council to the subject, and suggest whether, at the present time, great public good would not arise from an open discussion of the question in the Society's rooms, with a view to the consideration of how far the great natural resources of the kingdom might, by some large and comprehensive scheme of a national character, adapted to the vārying specialities and wants of districts, be turned to account for the benefit not merely of a few large centres of population, but for the advantage of the general body of the nation at large.'

I have the honor to be, Sir,

Yours faithfully,

ALBERT EDWARD, P., President of the Society of Arts.

This communication was laid before the Council at their meeting, and it was resolved that committees be formed to consider the best means of carrying into effect the Prince's proposition. The Secretary was also desired to inform His Royal Highness that the council would take immediate steps to secure the discussion of the subject as suggested. Food, of all sorts; the abuse or rightful use of alcholic drinks; impurities in food, their detection and methods of removal—all fall in the present day under the province of the intelligent physician. And how usefully such knowledge may be turned to the benefit of mankind I need not, I am sure, remind Madras, which has not yet forgotten how the bold and sagacious words of its Sanitary Commissioner spoken in time saved, during the past famine, most probably hundreds and thousands of lives of our poor fellow subjects.

But can I pass over the subject of food without making some allusion to the late dreadful famine which has visited this land? Pardon me the wretched platitude, but without food we cease to exist; this is too self-evident, but what does not seem so self-evident, although equally true, is that man can, by his ingenuity and the right application of science, do much to avert, if not altogether prevent, these calamitous visitations. I am not going to suggest we can put spots on the sun, if it is really owing to the non-maculation of that luminary we are indebted to the failure of our monsoons. But the sun is not an invention of to-day, and I may be allowed, with the greatest respect for my friend Mr. Pogson, to say I am with those who hold that that theory is not yet proven. But what history indubitably teaches us is that, whereas in the dark ages Europe, as I said before, was one recurring scene of pestilences and famines, famines under improved means of cultivation have practically ceased to exist. Some harvests, of course, are less plentiful than others, and occasionally there is partial distress, but famines such has we have had, are now, I may say, unknown. In the British Isles we have had no famine since 1847-48, when the potato failure caused such distress in Ireland. Now what was the course pursued by the people of England after this famine? I don't remember that they troubled themselves much about spots on the sun, but spots on Irish cultivation were very effectually rubbed out-the whole system of agriculture was changed. Agricultural colleges were started and an amount of attention directed to the food supply of the people which eventuated in almost changing the face of the country. Nor must you suppose that, in the British Isles, farming, as in this country, is relegated to the lower classes only-as

" In ancient times the sacred plough employed

" The king and awful fathers of mankind :

" And some, with whom compared your insect tribes

"Are but the beings of a summer's day,

"Have held the scale of Empire, ruled the storm

"Of mighty war! then with unwearied hand,

"Disdaining little delicacies, seized

The plough, and greatly independent lived."

So our great nobility, our Dukes, Earls and others, even Royalty itself, are many of them admirable farmers, and take the liveliest practical interest in the development of all that concerns the soil. Here it seems to me you have a most splendid opening for the educated youths of this country, and as Government has instituted an Agricultural College in Madras (and if I had any voice in the matter I would make the teaching of agriculture compulsory in all our Normal schools) there is no excuse for some of you not following this science. Of what may be done in this way two examples occur to me as I write, and had I time I have no doubt numberless other instances could be adduced. Thirty years ago, Wynaad was a jungle, the home only of elephants, wild boar, sambur and fever. It was almost a "terra incognita," save to the adventurous travellers who made a short cut through it from the Western Coast to Mysore. It is now the home of hundreds of venturesome and intelligent Englishmen, who employ thousands of your fellow countrymen in the cultivation of Coffee and Cinchona. The dense jungles are gradually being converted into fruitful plantations, and I presume the value of the property may now be estimated at millions! And from cultivation fever flies! Are there not countless tracts of land in India waiting only industry and

science to be thus converted into smiling gardens, amply repaying, as Nature always generously repays those who cultivate her? How cultivation affects even climates and calls down as it were rain from Heaven, I may cite to you the singular change which has come over that tract of land through which the Suez Canal has been cut. Hitherto rain was quite unknown there, but now ever and again the astonished Arab is witness of what to him would have been formerly a strange phenomenon, a refreshing shower. Is it not possible, and even probable that well directed industry in planting forests, damming our rivers, opening up irrigation works and making tanks, would thus beneficially change our climate in Southern India, and avert our Rain Famines?

But time will not permit me to pursue the subject further. I have said enough, I think, to convince you that Medicine is not a science which the people of India, of all people, and especially the Brahmins, should despise or neglect. It originated with you, and the prejudices which now debar you from its study had no existence in your olden age. It is essentially a study worthy of the noblest faculties of man, and one which the shrewd patient, clear intellects of the people of this country, especially the Brahmins, would master and adorn. But is there not something else which keeps the bold intellects amongst you from choosing medicine as a career ? I am afraid there is ; and here, as a servant of Government, it behoves me to be careful in what I say, but I take courage from the Viceroy's witty figure of speech on a late occasion, and feel sure that no English Government would wish to be treated as the Parsees treat their dead ; *to be surrounded by a Tower of Silence*.

Medicine is not an honored calling amongst Englishmen. There is no use blinking the fact. It is the Cinderella amongst professions. It wears the poor clothing and does the drudgery, whilst its sisters, Law and Divinity, and in this country Arms and the Civil Service, are clad in purple and fine linen and obtain all the honors. You hear it called an " honorable profession," a "noble" profession, but this alludes to its work not to its rewards. No English Physician, ever so famous. was ever ennobled. In this country no English Physician has ever been deemed worthy a seat in the Legislative Council. If the English gods churned the ocean for lost treasures, I am afraid it's not a "learned Physician" they would bring up; or if by chance they did, they would not make him king of Benares; they would most probably pop him in again, and go on churning, until a lawyer or a clergyman came up to fill the place and be made a Chancellor or an Archbishop.

It would be waste of time on this occasion my offering any speculations as to why this is so. I must content myself with simply mentioning the fact and pointing out how, in my opinion-open, I feel acutely, to the misconstruction of professional jaundice-this state of things is injurious to the commonwealth. In the first place it deters the men who would honor and benefit medicine with their acquirements and social influence, seeking a career in this most useful and intellectual profession. All men of any worth are more or less ambitious of distinctions, and such men avoid Medicine and overcrowd the ranks of other professions. You do it in this country. But in other ways of even more importance it is injurious. How many fair enterprises of our country have been shipwrecked, because the feeble voice of Medicine (feeble from its position) has been contemptuously silenced or set aside? Many of us in this room remember miscarriage of our first winter in the Crimea; how our poor wounded soldiers died from mere want of ordinary comforts and attention; and the siege of

I

S

Sebastapol was made a lingering sacrifice, on which a holocaust of brave British soldiers was offered up; simply and solely, I verily believe, because after Alma the Commander-in-Chief, hampered by wounded and uncared for soldiers, was unable to advance and snatch the prize their bravery had won for our Queen and country. It was afterwards discovered that what was wanted, and which was subsequently supplied twentyfold by a generous and indignant country, had been asked for by the head of the Medical Department, a Peninsular Veteran, who knew well the needs of an Army on Service, but his requests had been treated with scorn and neglect. Only the other day, a prize England has long set her heart on, and was within an ace of seizing, escaped her sailors from this contemptuous treatment of professional advice. I allude to the expedition to the North Pole, which miscarried from scurvy amongst the men, because lime juice in direct contravention of Medical advice was omitted from their rations.

But let me turn from this ungrateful feature of my subject. Just as in the fairy tales, the resplendent Prince appears at last with the glass slipper and elevates poor Cinderella to her proper sphere, so some far-seeing and benevolent statesman, some Lord Herbert of Lea, will come and place Medicine in her proper place, so that not only its sons shall be honored, (which is after all a secondary consideration,) but the voices of its "ancients" listened to when they speak of what they know, and the subjects of our Gracious Empress saved from unnecessary suffering and pestilence.

There is now left to me last, but not least, the most grateful portion of my task. I have to congratulate you who have to-day been capped upon becoming members of this University, and I do so on behalf of our noble Chancellor and the Senate most cordially. May your lives be happy, your careers useful to yourselves and to your country, and creditable to the University of which you have this day become members. You stand here, to my mind, like soldiers who have been dismissed their training. Arms are in their hands, and they are looked forward to henceforth as the defenders and warriors of their country. The arms placed in your hands are the keen weapons of science; like faithful soldiers keep them ever ready and bright by use. Be the peaceful warriors of Southern India, and though the combats you may go forth to wage are bloodless, and there is "no glorious pomp and circumstances of battle," yet are the victories, if

possible, more splendid, the result to your country more important. If any among you take up the paths I have indicated, Medicine or Agriculture, your foes will be pestilence and famine, and they slay myriads compared to the puny efforts of man's bloodiest wars. These be foemen worthy of your steel, and if there shall arise amongst you some one who, by his genius and acquirements, shall shew his countrymen how to avoid, or amply mitigate these evils, he will, even should he escape decoration, be amply honored in the plaudits of a grateful posterity.

1

