THE INFLUENCE OF DISEASE IN HISTORY

By Dr. J. Bryant Curtis

Delivered at a meeting of the Medico-Legal Society held on September 19th, 1964, at 8.30 p.m., at the British Medical Association Hall, 426 Albert Street, East Melbourne.

History, to me, is the story of man's relationship to man and his environment. It is all too obvious that disease has played a vast and continuous role in this interplay. But it may be there are some particular incidents in recorded history of interest—and especially so if one can find that disease has influenced some particular episode popularly supposed to result from some other cause. The delight which such unexpected discoveries give to the mind is a wholesome and genial human characteristic which has been a source of great profit to Penguin and other publishers.

Firstly, I propose to examine the effects of explosive outbreaks of epidemic disease which appear to have played an important, if not dominant role, in modifying historical events.

Before the time of the Greeks we can rely on little but deductive guess work. In the time of Samuel, the Israelites went out against the Philistines and, when they joined battle, Israel was smitten before the Philistines. Again the Israelites went forth to battle, carrying the Ark of the Lord with them and the Philistines killed 30,000 and the Ark of God was taken. I now quote Samuel, 1, Chapter 5.

> "And it was so that, after they [the Philistines] had carried the Ark about, the hand of the Lord was against them with a very great destruction and he smote the men of the city, both small and great, and they had *emerods* in their secret parts. There was a deadly destruction throughout all the city. And the men that died not were smitten with the *emerods.*"

I am indebted to the Oxford dictionary for the information that emerods are haemorrhoids. But haemorrhoids are an affliction of the hinder parts rather than those more forward, and it is unlikely they would cause such a high mortality, painful as they may be. The word from which it is translated is *ophalim* which means "elevated rounded swellings" and it is quite feasible

that the Philistines suffered from bubonic plague with swollen glands in their groins.

As a result of this affliction the Ark was returned to the Israelites.

With Grecian history our knowledge is more accurate and factual. In the Fifth Century B.C. it soon became apparent that, after the successful repulse of the Persians by a triple combination of dysentery, Sparta and Athens, these two major powers of the Greek states were becoming irreconcilable rivals. Sparta was supreme on the land and Athens supreme on the sea. In the second year of the Peloponnesian War, the Peloponnesians were invading Attica, when the plague first broke out among the Athenians. Thucydides gives the following dramatic clinical description of the disease:

> "People in perfect health suddenly began to have burning feelings in the head, their eyes became red and inflamed, there was bleeding from the throat and the tongue. The next symptoms were sneezing and hoarseness of voice and before long the pain settled in the chest and was accompanied by coughing. Next the stomach was affected with stomach aches and with vomiting of every kind of bile. Externally the body was not very hot to the touch nor was there any pallor. The skin was rather reddish and livid, breaking out into small pustules and ulcers".

This disease is said to have come from Egypt and to have first appeared in the port of Piraeus. It is by no means clear what was the nature of this disease except that undoubtedly it was a virulent infection. It may have been plague but it is not characteristic.

Athenian life was demoralized. Thucydides writes that "the catastrophe was so overwhelming that men, not knowing what would happen next to them, became indifferent to every rule of religion or of law".

This catastrophe had a marked effect on the ability of the Athenians to wage war. The war dragged on for many years ending finally in the defeat of Athens and the waning of its civilizing influence on the Greek states and colonies. There is little doubt that this plague seriously undermined the power of Athens and was perhaps the most significant factor in her defeat.

The eclipse of Athens was followed by the first stirrings of Macedonia which eventually flowered in the amazing career of

Alexander. H. G. Wells, who was always a supreme optimist, regards the significance of Alexander as "the first revelation to the human imagination of the oneness of human affairs". He became for mankind the symbol of world order and the world dominion. His career lasted ten years, he conquered most of the known world, he died at 33 and dysentery was the cause. His Empire collapsed at his death and his unifying influence disappeared for hundreds of years.

The next epidemic to consider is the plague of Justinian which commenced in 532 in Constantinople. It spread west by ship to Italy and soon covered Southern Europe. It recurred in sporadic form until 590 at least. It is recorded by the Venerable Bede (in the Anglo-Saxon Chronicle) as occurring several times in England in the following century.

This period of the Sixth Century is one of the turning points of Mediterranean history. Before it the Roman Empire still existed, although battered. The Eastern Roman Empire was still Latin and controlled Sicily and the Eastern Mediterranean. The Ostrogothic Empire in Italy, Austria and Dalmatia, under Theodoric, was still essentially Roman civilitas, and there was a Roman Senate, Roman consuls and a Roman civil service. The same applied to the Visigothic Empire in Spain and Southern France.

By the next century and dying out of the recurrent plague the picture was totally different. Spain and Italy were no longer Roman in custom but Germanic in administration and law. During the Sixth Century Justinian may be regarded as the last of the Roman emperors in the East and after him the Roman Empire of the East really ceased to exist and was Byzantine and Greek in character and language. True, during Justinian's reign there was a brief resurgence of power with military glory under Count Belisarius so that the Empire extended again as far as Spain. But it was short lived and during this reign there was also the famous codification of Roman Law in the Justinian Code.

I would like to be able to think that the breakdown of society resulting from these plagues initiated these legal reforms of Justinian but their initiation preceded the plague, although it may well have stimulated the later codification which followed. This century of plague saw the crumbling of Roman civilization.

The Black Death of 1347 commenced in the Crimea and rapidly spread west, carried by Genoese ships. In the spring of 1348 it reached Florence and we are reminded of this whenever

we browse in the Decameron. It is an awful thought, but worth remembering, that without the plague, we may never have been delighted by the tale of the Monk and Abbot of Lunigiana, or the tale of Masetto de Lamporecchio.

The plague reached England in August 1348 and swept through the country from the ports. During the three centuries since the Norman Conquest the population of England had probably doubled. In a year or two it was reduced by one half to two thirds. Some villages like Bishopstone in Wiltshire, Teilgarsley in Oxford, Ambion in Leicestershire were never repopulated. The immediate effect was chaos. The socially conscious and most Christian part of the community died doing their duty. But, as in Athens, generally there was a great decline of social and moral standards. William Dene, the Monk of Rochester, tells us that "the people, for the greater part, ever became more depraved, more prone to every vice and more inclined than before to evil and wickedness'.

The plague did not stop the French War but turned it into a running sore. It enormously accelerated social and economic change. The purchase of freedom from villeinage had certainly commenced years before the plague but the acute shortage of labour brought the struggle between landowner and villein and labourer to an acute and open stage. There is no doubt that the fierce economic struggle of villeinage to free itself, of labour to increase wages and of employers to restrict wages by statute, between 1350 and 1380, hastened the freeing of men from the soil.

It is during this period of the reign of Edward III that the legal system took on its adult habit. The serjeants-at-law and the judges were the new aristocracy and it was in the litigation involved in this economic struggle that they sharpened their teeth. The lawyer came to be regarded as the rich man's servant and certainly the majority of judgments went to those who could buy legal help. In the thirty years after the first Statute of Labourers nearly 9,000 cases of enforcement were tried by the courts and in nearly all, judgment was given in the employers favour. "Of all who enforced the lord's rights, the lawyer was the most hated", says Arthur Bryant.

However, this popular notion of the law was not confined to the Fourteenth Century. With some, it has persisted to our own times and John Gay in "The Beggar's Opera", composed in the Eighteenth Century, makes Peacham sing:

A fox may steal your hens, Sir
A wench your health and pence, Sir
Your daughter rob your chest, Sir
Your wife may steal your rest, Sir
A thief your goods and plate,
But this is all but picking
With rest, pence, chest and chicken
It ever was decreed, Sir, if Lawyer's hand is freed, Sir,
He steals your whole estate.

But this picture of the law is not entirely true, certainly in the Fourteenth Century. The law performed during the reign of Edward III, its greatest function of protecting the legal rights of the individual. Though it enforced serfdom where serfdom could be proved, it construed every sign of freedom as proof of freedom. Without lawyers to plead and Judges to judge, this principle could never have found such articulate embodiment in the laws of England.

A further victim of the Black Death was the foreign Staple. The plague ruined the capitalists who had financed the King in return for the Staple in wool, and he turned to a system of free trade which revived exports of wool, brought prosperity to the wool growers and smaller traders, provided the King with revenue and restored the country's depleted gold and silver reserves, and left to posterity the wonder of the glorious churches of the wool counties.

There is little doubt that malaria has influenced the rise and fall of the power of the States. W. H. S. Jones in his book *Malaria and Greek History* puts forward the thesis that it was malaria which enervated and devitalized the great Greek civilization, leaving it to fall without any real struggle to Rome. He contrasts the brilliance of the Greek civilization of the Sixth to the Fourth Centuries B.C. and their struggles against Persians, to its weakness, pettiness and vacillation of later years. We were forcibly reminded that malaria is endemic in these regions by the experience of the French troops in Macedonia during World War I when, over a period of three months, there were over 120,000 casualties from malaria among 4 divisions of troops.

Angelo Celli, a great malarial epidemiologist, studied the history of the Campagna, the plain surrounding Rome. He found this area was populous and flourishing in four periods: 1. in the pre-Roman era; 2. during the height of power of Imperial Rome;

3. during the Eighth and Ninth Centuries; 4. in modern times from the Fifteenth Century. Between these periods it was desolate, poor and sometimes depopulated by malaria. It is interesting to note the relation of these populous periods to the Etruscan Empire which withered away, the might and splendour of Imperial Rome, and the resurgence of Italy and the development of the Papal State in the Eighth and Ninth Centuries.

Malaria has remained a great cause of death until recent times. In 1945 it was considered to be the cause of over 1,000,000 deaths annually in India. Its effect, however, is greatest, not in causing death but by causing chronic ill health and debility. The control of malaria, in the last 20 years, in those great endemic regions of Africa and Asia may, quite possibly, be having its effect in helping to produce the burgeoning vitality and aggressiveness of these younger nations. It may well be that our preconceived notions of the national characteristics of some nations will have to be greatly modified and perhaps quickly, as their endemic malaria is conquered.

Typhus came from the East and reached Europe, probably in the Fifteenth or Sixteenth Centuries. From then until well into the Twentieth Century it dominated military campaigns and decided many of them. The struggles of the Emperor Charles and King Francis were controlled by typhus, and it dominated the Thirty Years War in Germany. On one occasion, in 1632 Gustavus Adolphus and Wallenstein faced each other at Nuremberg but typhus defeated *both* armies before they could fight. In almost every campaign of the Eighteenth and early Nineteenth Centuries more people died from typhus than from battle casualties. Zinsser gives a graphic description of the effect of disease on the Napoleonic campaign in Russia in 1812. Until the entry of this army into Poland the health of the 500,000 men was good. It then progressively deteriorated throughout the campaign and typhus was the main cause, helped by dysentery. Battle casualties were certainly not more than 50,000 but by October 19th, when the retreat from Moscow began an army of only 80,000 remained. By December 8th at Vilna it had shrunk to 20,000. Of Marshal Ney's Third Army Corps only 20 men remained. The overwhelming majority of the casualties were due to disease.

Disease, of course, has dominated most military campaigns in history. The crusaders were defeated by disease, not by battle. Of 300,000 men in the First Crusade, 60,000 only reached Jerusalem and within 2 years 40,000 of these had died, mostly from

smallpox. The Second Crusade was unable to get past Antioch. The Fourth Crusade was ruined by bubonic plague and Frederick of Germany's expedition turned back to Brindisi shortly after sailing because of dysentery. The list is without end and becomes boring by repetition.

I pass now to a consideration of the part played by disease in individuals and their influence on peoples and cultures.

Until Einstein, perhaps the most famous of scientists was Sir Isaac Newton. His mathematical genius was the bedrock on which modern science was built. Yet what a strange person he was and what a curious way did he come to his proofs! The details of his life are briefly thus: born in 1642, he was elected a scholar at Trinity College, Cambridge in 1664 and in 1665 proceeded to the degree of Bachelor of Arts. In 1667 he was elected a fellow of the College. In 1665 he discovered the binomial theorem and in 1666 he commenced the elements of differential calculus which he called fluxions. In the same year he commenced to think of gravity extending to the orb of the moon. In the next few years he was mainly interested in optics which led to his construction of the reflecting telescope. Finally his *Principia Mathematica* was published in three books in 1686 and 1687, after unending badgering by Halley.

In 1692 to 1694 he suffered a "nervous breakdown". It was reported that he was going out of his mind. He apparently recovered and in 1695 was made Warden of the Mint, and Master of the Mint in 1699. From 1695, after recovery from his illness, until his death in 1727, nothing original comes from him. The great works of his life were completed by the age of 45 years. He suffered a nervous breakdown at 50 years. He lived to 85 years.

He was a genius and therefore not ordinary. But the picture of him as a rationalist, who thought only along lines of cold reason, cannot be sustained. As Geoffrey Keynes describes him he was not the first of the Age of Reason, he was the last of the Magicians. The key to his nature lies in his notes and writings kept locked in his box which run to almost 1,000,000 words. They have no value except by giving insight into his mind. After his illness they were never added to and remained locked for the rest of his life.

He had, to an unusual extent, the power of continuous concentrated introspective thought. He could hold a purely mental problem in his mind until he resolved it. Then having solved it he proceeded to the mathematical proof. There is the

story of how he informed Halley of one of his most fundamental discoveries of planetary motion. "Yes" said Halley, "but how do you know about that? Have you proved it?" Newton replied "why, I've known it for years. If you will give me a few days, I'll certainly find a proof for it"—which he did!

In his secret notes he deals with all manner of esoteric and theological subjects. He was not an Orthodox Trinitarian but adopted an unusual form of Unitarianism, a form which may best be regarded as a type of Arianism. This secret he concealed all his life. It was why he refused Holy Orders and therefore had to obtain a special dispensation to retain his Fellowship. The holding of this serious heresy (for those days and in his position) placed a grave strain on his psychological stability. A large part of his notes are concerned with alchemy, transmutation, the philosopher's stone and the elixir of life. All this was concerned with magic and devoid of science. There is no doubt that he was profoundly neurotic of an extreme type. His deepest interests were occult, esoteric and semantic. "He was suspicious, fearful and cautious" said Whiston, his successor at Trinity, of the Lucasian professorship.

And in 1692 he fell ill for 2 years. He lost, he says, "the former consistency of his mind". He was melancholic, sleepless and paranoic. When he emerged he was different. He moved to London, the Mint and the society of London. He was knighted by Queen Anne and for nearly 20 years was President of the Royal Society. There are no more secret writings, he is affable and charming and there are no more discoveries. Without his deeply neurotic nature where would we have been?

Florence Nightingale was born in 1820 and died in 1910. She became famous in the Crimean War in the 1850's and remained so powerful that in 1906 the India Office was still sending to her papers on sanitary matters for her comment.

She was born in France of rich and travelling parents. She grew up in England in the settled ordered way of rich landed English families. She was imaginative and introspective and tended to escape into dreams. She was intelligent, beautiful, passionate and dominated her older sister. At the age of 17, just as she was about to "come out" she received her call. In a private note she wrote "On February 17th, 1837, God spoke to me and called me to his service". She still, however, did not know what she had to do. She now waited for her task. For the next seven years she led a curious life alternating between the enjoyment of

a gay social life and the deep dissatisfaction of her mind at her lack of a useful life. In 1844 her destiny became clear to her, her vocation lay in hospitals amongst the sick. She then realized she must learn how to nurse. Against the unanimous opposition of family and social friends she doggedly won her way. Eight more years of struggle passed before she gained her freedom in 1853 to pursue her vocation.

By the end of the Crimean War England had placed her in a position of a national heroine whom no one could afford to ignore. But on her return to England her labours increased. Her struggle to improve the medical treatment in the Army with an unwilling Government proved too much. Whilst waiting for the Royal Commission to be appointed she wrote her own Notes, which ran to 800 pages in six months. Her plan was ordered under four headings; which may serve even today as the model for Army Medical Services:

1. Put the Barracks in sanitary order.
2. Found a statistical department for the Army.
3. Institute an Army Medical School.
4. Reconstruct the Army Medical Department, revise the Hospital regulations and draw up a new warrant for the promotion of Medical Officers.

But on August 11th, 1857, while the issue was still undecided, she had a complete collapse. This collapse was the beginning of her retirement as an invalid which lasted for the rest of her life. She was so ill, that it was generally thought she might die and she lived with the fear of impending death and the sense of urgency to complete her work before it occurred. She learnt to exploit her ill health and used it unscrupulously to gain her ends. If thwarted she collapsed with the recurrent symptoms of palpitations, fainting, breathlessness, weakness and inability to digest food.

She visited no one but the most eminent visited her. This state of affairs lasted for the rest of her life, and only changed in the last few years of it by the deterioration of vision and mental faculties.

This is an extraordinary example of hysteria, and one which was so skilfully and wholeheartedly used for the attainment of her aims for the transformation of the medical care of soldiers and then later civilians. There are few fields of human activity where one person achieved so much and where the changes were so great.

I will do no more than mention briefly some other cases: The fatal hesitancy of Napoleon the morning after Ligny, before Waterloo, said by some to have been due to an attack of painful haemorrhoids, and by others to a torpor similar to that at the battle of Borodino in 1812 which may have been due to his undoubted hypopituitarism. The relation of the birth of the Protestant Church of England and the probable syphilis of Henry VIII. The role of schizoid hysteria in the amazing career of Joan of Arc. There are many others.

Finally I come to another curious finding. Today it is becoming known that more and more diseased conditions are due, not to external or degenerative factors, but to inborn genetic patterns. In the same way as an increasing number of diseases are found to be genetically inherited so there appear to be genetic strains of superior intelligence and ability which, in successive generations play a dominant role in the affairs of mankind.

The families of Macauley and Trevelyan and their relationship are well known; and also the strain of brilliance which runs through the Huxley family and the Strachey family.

W. T. Gun in his *Studies of Hereditary Ability* gives us some amazing instances:

1. Dryden, Swift and Horace Walpole in the Eighteenth Century were cousins, all being descended from John Dryden of Canons Ashby.

2. The descendants of John Reid who fell at Flodden Field in 1415 included in the Eighteenth Century, Boswell, Robertson the historian, Robert Adam the architect and Brougham. Among his twentieth century descendants are Bertrand Russell, Harold Nicolson, Bruce Lockhart and General Booth-Tucker of the Salvation Army.

3. The descendants of the Highlander Auley Macauley, apart from the Trevelyan and Macauley families mentioned above included such as Hugh Walpole, Lytton Strachey, Compton Mackenzie, Maurice Baring and Virginia Woolf.

4. The most remarkable family of all is the Villiers family, who provided George, first Duke of Buckingham, the favourite of James I. Those descended from the son of Sir John Villiers and the daughter of Sir John St. John include: Barbara, Countess of Castlemaine, mistress of Charles II; Arabella Churchill, mistress of James II; Elizabeth, Countess of Orkney, mistress of William III; Lord Rochester; Lord Sandwich; Duke of Marlborough; Duke of Berwick; Duke of Grafton; The two Pitts; Charles James

Fox; Charles Townshend; Lord Castlereagh; The Napiers; The Herveys; The Seymours; The Jerseys; The Lansdownes; The Cavendishes—Dukes of Devonshire; Lady Hester Stanhope; Lady Mary Wortley Montagu, the distinguished eighteenth-century letter writer; and Sir Winston Churchill.

Is this an indication that certain small strains have produced eminent characters out of all proportion to their size?

I leave this last speculation with you.

References

1 *The Bible.*
2 *Encyclopaedia Brittanica.*
3 Arthur Bryant, *The Age of Chivalry.*
4 John Gay, *The Beggar's Opera.*
5 Edward Gibbon, *The Decline and Fall of the Roman Empire.*
6 J. M. Keynes, *Essays in Biography.*
7 C. McLaurin, *Post Mortem.*
8 Edith Saunders, *The Hundred Days.*
9 Henry Sigerist, *Civilization and Disease.*
10 C. Woodham Smith, *Florence Nightingale.*
11 Lytton Strachey, *Eminent Victorians.*
12 Thucydides, *The Peloponnesian War.*
13 H. G. Wells, *The Outline of History.*
14 *The Pelican Atlas of Medieval Europe.*

Discussion

MR. K. A. AICKIN, Q.C.: The role of the medical profession played little part in this paper which we have heard, and I think that that is something which, perhaps, those members of the medical profession, who form part of the audience, might supply. What, if any, influence the Army Medical Corps of Alexander, or before Alexander and onwards, may have played in the campaigns, of which we have heard a little, has remained obscure.

The selection which we have had of famous people is an interesting one. I do not know what common feature is to be found between Isaac Newton and Florence Nightingale. Longevity suggests one tie. One suspects that there is another common feature between those who achieve the kind of results which Florence Nightingale did, by resort, consciously or unconsciously, to unfair means which she exploited from the age of 17 onwards, if her recent biographers are to be believed. One cannot doubt the effectiveness of her personality at all levels upon the persons with whom she had to deal. Whether that was due to disease, or to psychiatric difficulties or problems I have not really gathered. Perhaps Mr. Curtis will add a word or two about that.

So far as Isaac Newton is concerned, perhaps one might just say this, that it has come to be a common belief in the lay world that scientific achievement is confined to those under the age of about 35, and that really new ideas in scientific fields do not come to those who have achieved that age, and that it is not because of any other reason that they are diverted into fields of administration and the like. I do not know whether the medical profession, who, of course, stand much closer to science than lawyers do, really agree with that, but one might ask of Einstein, for example, whether in the latter half of his life he produced new ideas comparable with those which form part of his first treatise on the general theory of relativity.

THE CHAIRMAN (PROF. D. DERHAM): I would like to ask our speaker three questions. I would like to ask him whether he does not think the connections he draws between the famous people he mentions might not be as much concerned with the old maxima of the Greek matron in regard to the marriage of her daughter, that she should not marry for money, but she should go where money is, as it is with genetic links from generation to generation?

The second is whether he or other members of the medical side of the Society can say something about the particular chances that seem to affect individuals or groups of individuals in times of plague, so that a man, by having some kind of built-in immunity to the dangers that surround him, may achieve greatness not simply by longevity but by this built-in immune condition.

The other question is, has our speaker considered the effect of the periodic diseases, some of which he mentioned, on social structures? I suppose the most complex one is to be discovered in India, where you have over 200 castes. Were the rules and conditions of some of the castes based on the knowledge of some of the different kinds of diseases as much as anything else?

DR. SPRINGTHORPE said that scientific medicine with regard to the understanding of the causation of disease, on which any rational treatment must be based, only extends back possibly 100 years, or perhaps a bit less, so that the question of Mr. Aickin as to how much the medical advisers of the great generals and war-makers of the past may have contributed to or minimised the disasters of ill-health which decimated their armies is easy to answer. There is so little knowledge about aetiology and so

little known about the Black Death that it was not known until 100 years ago that there were infective agents at all, so the medical profession were even more handicapped than they are now!

DR. E. BEAVIS: The First World War was largely fought by two important medical factors. These were the existing form of what we would now regard as quite empty control of things such as typhoid and other infectious diseases, and the intelligent application of principles of nutrition against the country we were fighting.

I would also like to hear about what seems to me to be the most important influence of a psychopathic personality on history, and I refer now to the personality of Hitler.

It also appears to me that one of the main features of the tremendous changes occurring in the world as a whole at present is due to the influence of medicine. I am allowing for some increases in the population, but it would appear to me, and I would like to know what the legal opinion is on this, that if we are to survive as rational, safe, and reasonably comfortable people in this world, it is essential that medical techniques are applied to control population explosions, when the factors which have previously prevented these from developing no longer exist because of the intelligent application of medicine.

MR. JONES said that the segmentation of Germany, in turn, depended on Augustus' decision to draw the line of the Roman Empire at the line of the Rhine. As the defensive activities of the Germanic Arminius had resulted in very heavy losses of Augustus' legions, Augustus decided that the Roman Empire could not be extended beyond this point because of the strong resistance met. It is of interest to postulate that Augustus' decision led to the absence of Roman roads and any means of communication. The absence of a system of uniformity in Germany led to this fragmentation into city states, and this highly competitive attitude between them, which, in turn, in surgical endeavours led to the extraordinary development in all areas of surgery between 1830 and 1885.

MR. S. E. K. HULME: It occurs to me to wonder about the very very strange case of the man who, I suppose, has had the most capable mind that has applied itself to politics in this country, and that is Alfred Deakin.

Towards the end of his successive terms as Prime Minister, as

is shown in his notebooks, Deakin was trying desperately to resign with, in effect, both parties insisting that he should not resign, but should remain as Prime Minister. Meanwhile, he kept voluminous notebooks, written at night, saying that the reason why he ought to cease to be Prime Minister was because his mind had gone, something of which he apparently was conscious long before anyone else. In these notebooks, which went on on this subject from, perhaps, about 1912 throughout the rest of his term as Prime Minister, Deakin was portraying in the notebooks, every night, all the indications of the manner in which his brain had failed during the day—people whose names he had not remembered, quotations which he had known for 50 years which he suddenly could not bring to mind. It is rather strange to remember that this man had been Prime Minister for at least two years after he had arrived at the view that he was totally unequipped for the job on the basis of his mental condition as it was at that time.

Most of these notebooks, all of which have been preserved, have been up until recent times kept unavailable by the family. It occurs to me that it would be very interesting to, I suppose, psychiatrists and may be other kinds of doctors as well to look at these books which were kept on a day to day basis, and contain, apparently, from what is known, a very honest record by a most distinguished person of the symptoms which decayed his own mind.

MR. ABEL said that in the interplay of disease and history, disaster has often been regarded by many religions and many sub-divisions of religions as a Divine punishment and not as a matter to be cured scientifically. To what degree has established order retarded or discouraged research in disease by insisting that it is part of a Divine punishment?

DR. H. LEE: Rising before this party, I feel very much like I did a few months ago in New York when two cars came together. I was riding in one, and the bumpers came end to end, and a 200 lb. 6 ft. negro got out and came up and looked at us in our car, looked us all over as we were sort of quivering in the background, and said, "It is a good thing I have killed my man for today", and got back in his car.

The distinguished Chairman earlier said that he wondered what effect doctors had had to make on history, if any. Being an American, we do not really recognize any history prior to 1776,

so I must confine myself to more modern times. One of our Presidents sneaked out to sea with a cancer of the antrum—that is this segment of the face—and, totally unknown to the entire American public, he spent six weeks at sea, had his whole upper jaw and maxilla removed, came back with all his new teeth in place. Nobody knew that anything had happened. Everything functioned totally and completely without any apparent change in the Government going on.

Mr. Eisenhower suffered a stroke, a coronary, and intestinal obstruction during his term of office, and about half-way through his Presidential tenure, abdicated his responsibilities totally to his Vice-President. For two years Nixon really carried the load with an ill President who was carried along by doctors, essentially meeting the front line.

To get right up to date, Mr. Kennedy would not have been President at all had it not been for cortisone. He had Addison's Disease, and with this, in this day and age, this is a completely curable disease by replacement hormone. He underwent an operation when he was Senator, and had massive replacement of his adrenal hormone, and was able to carry on and become President in the face of what, 20 years ago, was a fatal disease. His contribution, of course, was cut short by something that even our neuro-surgeons are limited in their ability to treat.

DR. HURLEY said that a young President kept alive is a good thing, but when you have aging politicians, and these politicians remain in power and they get older, and medical men keep them alive when it is clear to everyone except themselves that, really, they have "had" it, is it a medical or a legal problem to quietly remove them?

MR. J. B. CURTIS: The medical profession has had practically no influence at all until the last 100 or 150 years, and I am not at all sure that its influence in the last few years is something that I want to talk about. It is perfectly true, of course, that what we have done in the last 30 years is a subject which could easily fill another evening's discussion. We have conquered, to a great extent, or, at least, are capable of conquering the great infections and the great nutritional diseases. We have conquered, in the main, the powers of nature to kill us off before we can fight back. We have not really convinced humanity of the necessity of controlling our destiny in other ways yet.

What I was trying to say about Florence Nightingale was that here was a woman who, although she did not manifest in an overt

way her frank hysteria until 1857, nevertheless the elements of her personality which finally resulted in this hysteria were present from 1837 on, and it was this make up of her own personality, the product of her person genetically, and her environment, which provided the drive in this curious fashion, this single-minded drive against all the dictates of the ordinary demands of life, and when it was apparently almost defeated, only then did she become overtly an hysteric, and then it was so beautifully and carefully used that for another 40 or 50 years she kept on using it to achieve her aim.

The thing that I found so extraordinary about Newton was not that he was a person who produced these extraordinary things in his youth, but that he was a particular psychological type who, as he had his open life, also had this secret life which he took great pains to conceal from people, and then he had this extreme nervous illness, and, after that, the whole man is changed. I think this is the important thing about it, not that he produced work and gradually declined into that slough which we call old age, but that there was this dramatic change associated with a nervous illness, and I must say a nervous illness is a disease in the same way as a gangrenous limb.

I do not think I shall enter into any controversy regarding the essential elements of the psychopathic personality of Adolf Hitler, apart from agreeing with its general premise. I thought that Mr. Jones produced a most stimulating thought, one with which I had not concerned myself at all, except insofar as he mentioned Roman roads.

Our visitor from the United States opens up a vast and most interesting study, which, again, it is impossible to attempt to cover tonight. I must say with regard to the late President Kennedy and his treatment with cortisone in the days when he was alive, just what effect the euphoria of cortisone might have played in the making of grave decisions that he might have come to from time to time.

I think Dr. Hurley covered most of the other outsanding questions in his very short but pungent comment.