

this quantity is considered far too small to be a factor in the production of hyperthyroidism. The amount of salt consumed either in cooked foods or directly as a condiment varies so greatly with individual or skilled taste that it may be found difficult in practice to ensure that each person gets enough and not too much extra iodine. But in a country where about one child out of every three has a goitre, it is probably worth giving this convenient form of universal administration a prolonged trial.—*The Lancet* 2: 768, 1928.

AVERTIN ANÆSTHESIA

Avertin has now been used for rectal anæsthesia over 100,000 times in Germany, but its "advantages are not yet finally determined on a basis of security" according to Prof. V. Anschütz who contributes a valuable article on the subject. Regulation of the dosage is, of course, the great obstacle to invariable success with this as with other anæsthetics administered per rectum. The usual method of putting in the entire estimated dose within a few minutes has given at Kiel success in 80 per cent of the cases. The alternative procedure of feeling the way, so to speak, and giving the injection by fractional administration requires so much time and patience that it does not appear to be a practical proposition. Prof. Anschütz forbids any enema on the morning of operation so as to avoid risk of irritating the rectal mucosa and of leaving water behind, which would, of course, upset the proper strength of the injected avertin solution. He uses an airway, leaving it in position till the patient awakes, sometimes for hours at a stretch. Prof. Anschütz regards avertin anæsthesia as the method of choice in elderly patients and in the presence of pulmonary, aortic, or renal complications—"in a word, in all cases where ether anæsthesia is contra-indicated.—*Lancet* 2: 1141, 1928.

PIONEERS

"The tribute which Lord Dawson of Penn paid at the annual dinner of the Royal Society of Medicine to the work recently carried out in Africa on yellow fever deserves the attention of a wider audience. That work engaged the services of three men of outstanding ability and reputation, Adrian Stokes, Hideyo Noguchi, and William Young. They set out to determine the true character of the causative organism of yellow fever, and for a long time laboured in vain, because they were unable to discover any animal which was susceptible to the disease. At last, however, patience was rewarded. A type of monkey was found which showed a high degree of susceptibility. The three workers

proceeded to prepare vaccines from the tissues of animals of this species which had been infected, and achieved the remarkable result that they were able to afford complete protection against 'any and every dose of yellow fever virus.' In short, they were well on the way to giving the world a specific protection against yellow fever.

Then came the tragedy. Stokes became infected with the terrible virus with which he was working and quickly succumbed. A short time afterwards Noguchi also became infected. It fell to Young, the last survivor of the party, to perform, in the interests of the work, a post-mortem examination on the body of Noguchi. He did not shrink from the hazardous enterprise, and he paid for his courage and devotion with his life. Thus triumph has been turned into failure. Yet, so fine is the spirit that animates the medical profession, others will be found to begin where these men left off, facing the same risks with the same imperturbable courage. Another illustration of this spirit was given by Lord Dawson when he referred to the recent untimely death of Robert Knox, 'pioneer and leader of radiology, by the study of which he cut short his life of work and friendship.' These men, in widely different departments of medicine, have given their lives for their friends. It is a matter of congratulation that, to-day though the husbandmen fall, the fruit is sure to be gathered. It was not always so in the history of medicine. Lord Dawson, on the authority of Mr. Thompson, Curator of the Wellcome Historical Medical Museum, disclosed the fact that, some twenty years before the discovery of ether in America and of chloroform in Scotland, a certain young doctor named Hickman was producing anæsthesia in animals by the inhalation of gases and performing painless operations on those animals. He brought his results to the notice of both the English and the French professions and tried to persuade them to institute the same anæsthesia for man. But his appeals were of no avail."—*Weekly Times*, Nov. 22, 1928).

THE STORY OF NICHOLAS CULPEPPER: ASTROLOGER-PHYSICIAN*

Told in Responding to the Toast of "The Guests" at the Annual Dinner of the Royal Society of Medicine

BY RUDYARD KIPLING

Fellow-guests,—I don't know how it is with you, but, when a medical man approaches me in the language of compliment, I am filled with an uneasy suspicion that somebody's tobacco is

* Taken from *The Lancet* 2: 1061, Nov. 24, 1928.

going to be rationed. That possibility, however, is behind us for this evening, so we can the better appreciate Colonel MacArthur's flattering diagnosis of our several virtues and merits. Some of us must have all of the symptoms indicated. I have one. I am a story-teller.

Lord Dawson, members of the Royal Society of Medicine, gentlemen, and ladies, will you lend me your patience while I tell you a perfectly true story?

Nearly 300 years ago there was an astrologer-physician called Nicholas Culpepper, practising in Spitalfields. And it happened that a friend's maid-servant fell sick with what the local practitioner diagnosed as plague. Culpepper was called in as a second opinion. When he arrived the family were packing up the beds, preparatory to going away and leaving the girl to die. He took charge. There was no silly nonsense about looking for the characteristic plague tongue. He only asked at what hour the young woman had taken to her bed. That gave him, as I need not tell you, "the hour of the decumbiture." He then erected a horoscope, and "inquired of the face of the Heavens how the malady might prove." The face of the heavens indicated it was not plague but just small-pox, which our ancestors treated almost as lightly as we do. And small-pox it turned out to be. So the family came back with their bedding, and lived happily ever after; the girl recovered; and Culpepper said what he thought of his misguided fellow-practitioner. Among other things, he called him "a man of forlorn fortunes with sore eyes."

Preposterous as all this was, you must remember that Culpepper justified his practice by the theory that "this creation, though composed of contraries, is one united body, of which man is the epitome, and that he, therefore, who would understand the mystery of healing must look as high as the stars."

That was a distorted shadow of the ancient idea that the universe is one in ultimate essence—which essence is sustained and embraced and interpenetrated by a creative motion or inner heat—the pneuma of certain Greek physicians, who practised 500 years before St. Paul preached at Athens. It was a noble belief, but it did not prevent Dr. Culpepper from using a pharmacopœia and therapeutics that would have made a West African witch doctor jealous. And when he came across anything that he did not understand, or that Aristotle had not provided for, he put it down to "influences" or "emanations"—same as you do a common cold.

But if he could return to earth to-day and see how things have progressed in the mystery of healing I fancy he would be quite at ease in your Zion. He believed in the transmutation of metals. He could be shown that in full blast at a Royal Society soirée—with emanations. He would find that the essential unity of creation

is admitted as far forth as we have plumbed infinity; and that man, Culpepper's epitome of all, is in himself a universe of universes, each universe ordered—negatively and positively, by sympathy and antipathy—on the same lines as hold the stars in their courses.

Consequently, he would not be astonished to see men snatch out of the air an influence—an inner heat or pneuma—of which they know no more than that it visibly warms, lights, and works for them, and, invisibly, transmits their speech and vision to one side of the world on the instant that they themselves speak or look from the other. And the news that unknown influences from out of the skies lash and tear through all matter everywhere at all times would be received by him with perfect calm.

Being an astrologer, he would, of course, go to Greenwich Observatory, to learn more about those influences. There he would be given monographs on terrestrial magnetism—its daily and seasonal tides the world over, magnetic storms, sunspots, auroras, and so forth, but all discussed without any relation to the severity or incidence of prevalent epidemics and diseases. From Greenwich he would certainly push on to the B.B.C., who would tell him that there are unknown heavenly influences which prevent millions of bold youths and blushing maidens from hearing the music they would dance to—influences which at times cause the spoken word to die out under the stars as the note of a rubbed finger-bowl dies when the hand is lifted.

Presently—for he was always stronger on theory than research—he would fetch up among the laboratories where, if he was as lucky as I was this summer, he would be shown marvellous films of infected tissue being subjected to the influence of an influence called radium. Then, I fancy, the fun would begin. Up to that point, he would find the main axiom which he had quoted three centuries before accepted, proven, and in use: the influence, the inner breath, the pneuma—not only exceeding all bounds of wonder and belief in its proper manifestations, but, under the name of electricity, piping and singing in the marketplace on a commercial basis.

So, as with his small-pox case, his first question after he had seen the films would be: "What was the aspect of the heavens at the time these phenomena occurred?" He would take it for granted that, with the whole universe alight to signal some tremendous secret to mankind, men would naturally look as high as the stars. And what answer would he get? When I asked a similar question of a man of science lately he said: "You'd better see a doctor." I told him that, with any luck, I expected to see ever so many of them before long. That ex-

pectation having been fulfilled to-night, I want to ask you some questions.

Isn't it likely that the multitude and significance of the revelations heaped upon us within the past few years have made men in self-defence specialize more and more narrowly? Haven't we been driven headlong to abandon our conceptions of life, motion, and matter? And isn't it human that in that upheaval men may have carried off each his own cherished prepossession and camped beside it—just as refugees do after an earthquake?

Is it then arguable that we may still mistake secondary causes for primary ones, and attribute to instant and visible agents of disease unconditioned activities which, in truth, depend on some breath drawn from the motion of the universe—of the entire universe, revolving as one body (or dynamo if you choose) through infinite but occupied space? The idea is wildly absurd? Quite true. But what does that matter if any fraction of any idea helps towards mastering even one combination in the great time-locks of Life and Death?

Suppose, then, at some future time when the bacteriologist and the physicist are for the moment at a standstill, wouldn't it be interesting if they took their problem to the astronomer, and—in modern scientific language, of course—put to him Nicholas Culpepper's curious question: "What was the aspect of the heavens when such-and-such phenomena were observed?"

VOLUNTARY HOSPITALS AND MOTOR ACCIDENTS

It is common knowledge that during the past few years motor accidents have greatly increased and many hospitals, especially those on the main lines of traffic, have with difficulty been able to provide beds and treatment for the injured, whether motorist or pedestrian, without encroaching on accommodation already too limited for the locality in which they are situated. A recent report summarizes 98 replies, received from 160 provincial hospitals, to letters asking for information regarding the volume of work and the cost involved in treating such cases. From these replies it is deduced that the hospitals treated during the year 1927 approximately 26,000 in-patients and 30,000 out-patients as a result of motor accidents, at a total cost of £230,000, the amount received by the hospitals from insurance and from the patients themselves towards their cost being only some £26,000. The records, although incomplete, justify a belief that these figures are a reasonable approximation to the truth. Only one of the hospitals sending in returns has received as much as one-half of the cost incurred; 10 have received nothing at all; probably 11

per cent represents fairly the amount which the majority of the hospitals recover by gift or payment. A factor in the problem is the unevenness with which the burden falls on different hospitals. Two hospitals on the outskirts of London, with 112 and 52 beds respectively, treated 164 and 100 in-patients, while a Midland hospital and a north country hospital of 124 and 140 beds treated only 62 and 36 in-patients. None of the steps thus far taken appears to have adequately met the situation. In one hospital patients are interviewed and a written undertaking obtained to include hospital costs in any claim made. In another, patients are asked whether they are making claims for compensation, and sums varying from £5 to £70 have been received. In a third each patient, on discharge, has been given a bill for the full cost of maintenance, with a view to his passing it on to the person who caused the accident. An obvious difficulty is due to the large proportion of patients who do not belong to the district in which the hospital is situated; in a small hospital with a limited area the proportion may be as high as 33 per cent, while in a city hospital serving an extensive county area it may be as low as 3 per cent. Many people think that the solution of the problem is to be found in the compulsory insurance of motorists, but Sir Arthur Stanley, in his presidential foreword, remarks that this method has been carefully examined and does not appear to be practicable, if only for the reason that many of the persons involved in road accidents are not themselves motorists. Sir Arthur expresses his personal hope that motorists themselves will come to the rescue by establishing some central voluntary fund from which the hospitals could be helped. Articles contributed by Lord Montagu of Beaulieu and Sir William Goschen also point out the difficulties in solving the problem by insurance alone. While nothing should be done to alienate the practical sympathy of the voluntary giver, it is clear from the views expressed in reply to the questionnaire that some extension of voluntary hospital support is necessary in order to enable hospitals to meet the cost of treating patients suffering from road accidents. —*Lancet* 2: 1139, 1928.

THE MOVIES AND CHILDHOOD

M. Rouvroy is the medical director of a home for abnormal children at Molle Huttes in Belgium. He has, therefore, had a good opportunity of studying the influence of the current cinematographic representations upon nervous, subnormal, and abnormal children. His observations are recorded in the issue of the *Révue internationale de l'Enfant* for May, 1928, Vol. 5, No. 29. He does not disregard the efforts that