It is not the fault of our doctors that the medical service of the community, as at present provided for, is a murderous absurdity. That any sane nation, having observed that you could provide for the supply of bread by giving bakers a pecuniary interest in baking for you, should go on to give a surgeon a pecuniary interest in cutting off your leg, is enough to make one despair of political humanity. But that is precisely what we have done. And the more appalling the mutilation, the more the mutilator is paid. He who corrects the ingrowing toe-nail receives a few shillings: he who cuts your inside out receives hundreds of guineas, except when he does it to a poor person for practice.

Scandalized voices murmur that these operations are unnecessary. They may be. It may also be necessary to hang a man or pull down a house. But we take good care not to make the hangman and the housebreaker the judges of that. If we did, no man's neck would be safe and no man's house stable. But we do make the doctor the judge, and fine him anything from sixpence to several hundred guineas if he decides in our favor. I cannot knock my shins severely without forcing on some surgeon the difficult question, "Could I not make a better use of a pocketful of guineas than this man is making of his leg? Could he not write as well—or even better—on one leg than on two? And the guineas would make all the difference in the world to me just now. My wife—my pretty ones—the leg may mortify—it is always safer to operate—he will be well in a fortnight—artificial legs are now so well made that they are really better than natural ones—evolution is towards motors and leglessness, etc., etc., etc."

Now there is no calculation that an engineer can make as to the behavior of a girder under a strain, or an astronomer as to the recurrence of a comet, more certain than the calculation that under such circumstances we shall be dismembered unnecessarily in all directions by surgeons who believe the operations to be necessary solely because they want to perform them. The process metaphorically called bleeding the rich man is performed not only metaphorically but literally every day by surgeons who are quite as honest as most of us. After all, what harm is there in it? The surgeon need not take off the rich man's (or woman's) leg or arm: he can remove the appendix or the uvula, and leave the patient none the worse after a fortnight or so in bed, whilst the nurse, the general practitioner, the apothecary, and the surgeon will be the better.

DOUBTFUL CHARACTER BORNE BY THE MEDICAL PROFESSION

Again I hear the voices indignantly muttering old phrases about the high character of a noble profession and the honor and conscience of its members. I must reply that the medical profession has not a high character: it has an infamous character. I do not know a single thoughtful and well-informed person who does not feel that the tragedy of illness at present is that it delivers you helplessly into the hands of a profession which you deeply mistrust, because it not only
advocates and practises the most revolting cruelties in the pursuit of knowledge, and justifies them on grounds which would equally justify practising the same cruelties on yourself or your children, or burning down London to test a patent fire extinguisher, but, when it has shocked the public, tries to reassure it with lies of breath- bereaving brazenness. That is the character the medical profession has got just now. It may be deserved or it may not: there it is at all events, and the doctors who have not realized this are living in a fool's paradise. As to the humor and conscience of doctors, they have as much as any other class of men, no more and no less. And what other men dare pretend to be impartial where they have a strong pecuniary interest on one side? Nobody supposes that doctors are less virtuous than judges; but a judge whose salary and reputation depended on whether the verdict was for plaintiff or defendant, prosecutor or prisoner, would be as little trusted as a general in the pay of the enemy. To offer me a doctor as my judge, and then weigh his decision with a bribe of a large sum of money and a virtual guarantee that if he makes a mistake it can never be proved against him, is to go wildly beyond the ascertained strain which human nature will bear. It is simply unscientific to allege or believe that doctors do not under existing circumstances perform unnecessary operations and manufacture and prolong lucrative illnesses. The only ones who can claim to be above suspicion are those who are so much sought after that their cured patients are immediately replaced by fresh ones. And there is this curious psychological fact to be remembered: a serious illness or a death advertizes the doctor exactly as a hanging advertizes the barrister who defended the person hanged. Suppose, for example, a royal personage gets something wrong with his throat, or has a pain in his inside. If a doctor effects some trumpery cure with a wet compress or a peppermint lozenge nobody takes the least notice of him. But if he operates on the throat and kills the patient, or extirpates an internal organ and keeps the whole nation palpitating for days whilst the patient hovers in pain and fever between life and death, his fortune is made: every rich man who omits to call him in when the same symptoms appear in his household is held not to have done his utmost duty to the patient. The wonder is that there is a king or queen left alive in Europe.

DOCTOR'S CONSCIENCES

There is another difficulty in trusting to the honor and conscience of a doctor. Doctors are just like other Englishmen: most of them have no honor and no conscience: what they commonly mistake for these is sentimentality and an intense dread of doing anything that everybody else does not do, or omitting to do anything that everybody else does. This of course does amount to a sort of working or rule-of-thumb conscience; but it means that you will do anything, good or bad, provided you get enough people to keep you in countenance by doing it also. It is the sort of conscience that makes it possible to keep order on a pirate ship, or in a troop of brigands. It may be said that in the last analysis there is no other sort of honor or conscience in existence—that the assent of the majority is the only sanction known to ethics. No doubt this holds good in political practice. If mankind knew the facts, and agreed with the doctors, then the doctors would be in the right; and any person who thought otherwise would be a lunatic. But mankind does not agree, and does not know the facts. All that can be said for medical popularity is that until there is a practicable alternative to blind trust in the doctor, the truth about the doctor is so terrible that we dare not face it. Moliere saw through the doctors; but he had to call them in just the same. Napoleon had no illusions about them; but he had to die under their treatment just as much as the most credulous ignoramus that ever paid sixpence for a bottle of strong medicine. In this predicament most people, to save themselves from unbearable mistrust and misery, or from being driven by their conscience into actual conflict with the law, fall back on the old rule that if you cannot have what you believe in you must believe in what you have. When your child is ill or your wife dying, and you happen to be very fond of them, or even when, if you are not fond of them, you are human enough to forget every personal grudge before the spectacle of a fellow creature in pain or peril, what you want is comfort, reassurance, something to clutch at, were it but a straw. This the doctor brings you. You have a wildly urgent feeling that something must be done; and the doctor does something. Sometimes what he does kills the patient; but you do not know that; and the doctor assures you that all that human skill could do has been done. And nobody has the brutality to say to the newly bereft father, mother, husband, wife, brother, or sister, "You have killed your lost darling by your credulity."
Besides, the calling in of the doctor is now compulsory except in cases where the patient is an adult--and not too ill to decide the steps to be taken. We are subject to prosecution for manslaughter or for criminal neglect if the patient dies without the consolations of the medical profession. This menace is kept before the public by the Peculiar People. The Peculiars, as they are called, have gained their name by believing that the Bible is infallible, and taking their belief quite seriously. The Bible is very clear as to the treatment of illness. The Epistle of James; chapter v., contains the following explicit directions:

14. Is any sick among you? let him call for the elders of the Church; and let them pray over him, anointing him with oil in the name of the Lord:

15. And the prayer of faith shall save the sick, and the Lord shall raise him up; and if he have committed sins, they shall be forgiven him.

The Peculiars obey these instructions and dispense with doctors. They are therefore prosecuted for manslaughter when their children die.

When I was a young man, the Peculiars were usually acquitted. The prosecution broke down when the doctor in the witness box was asked whether, if the child had had medical attendance, it would have lived. It was, of course, impossible for any man of sense and honor to assume divine omniscience by answering this in the affirmative, or indeed pretending to be able to answer it at all. And on this the judge had to instruct the jury that they must acquit the prisoner. Thus a judge with a keen sense of law (a very rare phenomenon on the Bench, by the way) was spared the possibility of leaving to sentence one prisoner (under the Blasphemy laws) for questioning the authority of Scripture, and another for ignorantly and superstitiously accepting it as a guide to conduct. To-day all this is changed. The doctor never hesitates to claim divine omniscience, nor to clamor for laws to punish any scepticism on the part of laymen. A modern doctor thinks nothing of signing the death certificate of one of his own diphtheria patients, and then going into the witness box and swearing a peculiar into prison for six months by assuring the jury, on oath, that if the prisoner's child, dead of diphtheria, had been placed under his treatment instead of that of St. James, it would not have lived. And he does so not only with impunity, but with public applause, though the logical course would be to prosecute him either for the murder of his own patient or for perjury in the case of St. James. Yet no barrister, apparently, dreams of asking for the statistics of the relative case-mortality in diphtheria among the Peculiars and among the believers in doctors, on which alone any valid opinion could be founded. The barrister is as superstitious as the doctor is infatuated; and the Peculiar goes unpitied to his cell, though nothing whatever has been proved except that his child does without the interference of a doctor as effectually as any of the hundreds of children who die every day of the same diseases in the doctor's care.

RECOIL OF THE DOGMA OF MEDICAL INFALLIBILITY ON THE DOCTOR

On the other hand, when the doctor is in the dock, or is the defendant in an action for malpractice, he has to struggle against the inevitable result of his former pretences to infinite knowledge and unerring skill. He has taught the jury and the judge, and even his own counsel, to believe that every doctor can, with a glance at the tongue, a touch on the pulse, and a reading of the clinical thermometer, diagnose with absolute certainty a patient's complaint, also that on dissecting a dead body he can infallibly put his finger on the cause of death, and, in cases where poisoning is suspected, the nature of the poison used. Now all this supposed exactness and infallibility is imaginary; and to treat a doctor as if his mistakes were necessarily malicious or corrupt malpractices (an inevitable deduction from the postulate that the doctor, being omniscient, cannot make mistakes) is as unjust as to blame the nearest apothecary for not being prepared to supply you with sixpenny-worth of the elixir of life, or the nearest motor garage for not having perpetual motion on sale in gallon tins. But if apothecaries and motor car makers habitually advertized elixir of life and perpetual motion, and
succeeded in creating a strong general belief that they could supply it, they would find themselves in an awkward position if they were indicted for allowing a customer to die, or for burning a chauffeur by putting petrol into his car. That is the predicament the doctor finds himself in when he has to defend himself against a charge of malpractice by a plea of ignorance and fallibility. His plea is received with flat credulity; and he gets little sympathy, even from laymen who know, because he has brought the incredulity on himself. If he escapes, he can only do so by opening the eyes of the jury to the facts that medical science is as yet very imperfectly differentiated from common curemongering witchcraft; that diagnosis, though it means in many instances (including even the identification of pathogenic bacilli under the microscope) only a choice among terms so loose that they would not be accepted as definitions in any really exact science, is, even at that, an uncertain and difficult matter on which doctors often differ; and that the very best medical opinion and treatment varies widely from doctor to doctor, one practitioner prescribing six or seven scheduled poisons for so familiar a disease as enteric fever where another will not tolerate drugs at all; one starving a patient whom another would stuff; one urging an operation which another would regard as unnecessary and dangerous; one giving alcohol and meat which another would sternly forbid, etc., etc., etc.: all these discrepancies arising not between the opinion of good doctors and bad ones (the medical contention is, of course, that a bad doctor is an impossibility), but between practitioners of equal eminence and authority. Usually it is impossible to persuade the jury that these facts are facts. Juries seldom notice facts; and they have been taught to regard any doubts of the omniscience and omnipotence of doctors as blasphemy. Even the fact that doctors themselves die of the very diseases they profess to cure passes unnoticed. We do not shoot out our lips and shake our heads, saying, "They save others: themselves they cannot save": their reputation stands, like an African king's palace, on a foundation of dead bodies; and the result is that the verdict goes against the defendant when the defendant is a doctor accused of malpractice.

Fortunately for the doctors, they very seldom find themselves in this position, because it is so difficult to prove anything against them. The only evidence that can decide a case of malpractice is expert evidence: that is, the evidence of other doctors; and every doctor will allow a colleague to decimate a whole countryside sooner than violate the bond of professional etiquette by giving him away. It is the nurse who gives the doctor away in private, because every nurse has some particular doctor whom she likes; and she usually assures her patients that all the others are disastrous noodles, and soothes the tedium of the sick-bed by gossip about their blunders. She will even give a doctor away for the sake of making the patient believe that she knows more than the doctor. But she dare not, for her livelihood, give the doctor away in public. And the doctors stand by one another at all costs. Now and then some doctor in an unassailable position, like the late Sir William Gull, will go into the witness box and say what he really thinks about the way a patient has been treated; but such behavior is considered little short of infamous by his colleagues.

WHY DOCTORS DO NOT DIFFER

The truth is, there would never be any public agreement among doctors if they did not agree to agree on the main point of the doctor being always in the right. Yet the two guinea man never thinks that the five shilling man is right: if he did, he would be understood as confessing to an overcharge of one pound seventeen shillings; and on the same ground the five shilling man cannot encourage the notion that the owner of the sixpenny surgery round the corner is quite up to his mark. Thus even the layman has to be taught that infallibility is not quite infallible, because there are two qualities of it to be had at two prices.

But there is no agreement even in the same rank at the same price. During the first great epidemic of influenza towards the end of the nineteenth century a London evening paper sent round a journalist-patient to all the great consultants of that day, and published their advice and prescriptions; a proceeding passionately denounced by the medical papers as a breach of confidence of these eminent physicians. The case was the same; but the prescriptions were different, and so was the advice. Now a doctor cannot think his own treatment right and at the same time think his colleague right in prescribing a different treatment when the patient is the same. Anyone who has ever known doctors well enough to hear medical shop talked without reserve knows that they are full of stories about each other's blunders and errors, and that the theory of their omniscience and omnipotence no more holds good among themselves than it did with Moliere and
Napoleon. But for this very reason no doctor dare accuse another of malpractice. He is not sure enough of his own opinion to ruin another man by it. He knows that if such conduct were tolerated in his profession no doctor's livelihood or reputation would be worth a year's purchase. I do not blame him: I would do the same myself. But the effect of this state of things is to make the medical profession a conspiracy to hide its own shortcomings. No doubt the same may be said of all professions. They are all conspiracies against the laity; and I do not suggest that the medical conspiracy is either better or worse than the military conspiracy, the legal conspiracy, the sacerdotal conspiracy, the pedagogic conspiracy, the royal and aristocratic conspiracy, the literary and artistic conspiracy, and the innumerable industrial, commercial, and financial conspiracies, from the trade unions to the great exchanges, which make up the huge conflict which we call society. But it is less suspected. The Radicals who used to advocate, as an indispensable preliminary to social reform, the strangling of the last king with the entrails of the last priest, substituted compulsory vaccination for compulsory baptism without a murmur.

THE CRAZE FOR OPERATIONS

Thus everything is on the side of the doctor. When men die of disease they are said to die from natural causes. When they recover (and they mostly do) the doctor gets the credit of curing them. In surgery all operations are recorded as successful if the patient can be got out of the hospital or nursing home alive, though the subsequent history of the case may be such as would make an honest surgeon vow never to recommend or perform the operation again. The large range of operations which consist of amputating limbs and extirpating organs admits of no direct verification of their necessity. There is a fashion in operations as there is in sleeves and skirts: the triumph of some surgeon who has at last found out how to make a once desperate operation fairly safe is usually followed by a rage for that operation not only among the doctors, but actually among their patients. There are men and women whom the operating table seems to fascinate; half-alive people who through vanity, or hypochondria, or a craving to be the constant objects of anxious attention or what not, lose such feeble sense as they ever had of the value of their own organs and limbs. They seem to care as little for mutilation as lobsters or lizards, which at least have the excuse that they grow new claws and new tails if they lose the old ones. Whilst this book was being prepared for the press a case was tried in the Courts, of a man who sued a railway company for damages because a train had run over him and amputated both his legs. He lost his case because it was proved that he had deliberately contrived the occurrence himself for the sake of getting an idler's pension at the expense of the railway company, being too dull to realize how much more he had to lose than to gain by the bargain even if he had won his case and received damages above his utmost hopes.

Thus amazing case makes it possible to say, with some prospect of being believed, that there is in the classes who can afford to pay for fashionable operations a sprinkling of persons so incapable of appreciating the relative importance of preserving their bodily integrity, (including the capacity for parentage) and the pleasure of talking about themselves and hearing themselves talked about as the heroes and heroines of sensational operations, that they tempt surgeons to operate on them not only with large fees, but with personal solicitation. Now it cannot be too often repeated that when an operation is once performed, nobody can ever prove that it was unnecessary. If I refuse to allow my leg to be amputated, its mortification and my death may prove that I was wrong; but if I let the leg go, nobody can ever prove that it would not have mortified had I been obstinate. Operation is therefore the safe side for the surgeon as well as the lucrative side. The result is that we hear of "conservative surgeons" as a distinct class of practitioners who make it a rule not to operate if they can possibly help it, and who are sought after by the people who have vitality enough to regard an operation as a last resort. But no surgeon is bound to take the conservative view. If he believes that an organ is at best a useless survival, and that if he extirpates it the patient will be well and none the worse in a fortnight, whereas to await the natural cure would mean a month's illness, then he is clearly justified in recommending the operation even if the cure without operation is as certain as anything of the kind ever can be. Thus the conservative surgeon and the radical or extirpatory surgeon may both be right as far as the ultimate cure is concerned; so that their consciences do not help them out of their differences.
CREDULITY AND CHLOROFORM

There is no harder scientific fact in the world than the fact that belief can be produced in practically unlimited quantity and intensity, without observation or reasoning, and even in defiance of both, by the simple desire to believe founded on a strong interest in believing. Everybody recognizes this in the case of the amatory infatuations of the adolescents who see angels and heroes in obviously (to others) commonplace and even objectionable maidens and youths. But it holds good over the entire field of human activity. The hardest-headed materialist will become a consoler of table-rappers and slate-writers if he loses a child or a wife so beloved that the desire to revive and communicate with them becomes irresistible. The cobbler believes that there is nothing like leather. The Imperialist who regards the conquest of England by a foreign power as the worst of political misfortunes believes that the conquest of a foreign power by England would be a boon to the conquerors. Doctors are no more proof against such illusions than other men. Can anyone then doubt that under existing conditions a great deal of unnecessary and mischievous operating is bound to go on, and that patients are encouraged to imagine that modern surgery and anesthesia have made operations much less serious matters than they really are? When doctors write or speak to the public about operations, they imply, and often say in so many words, that chloroform has made surgery painless. People who have been operated on know better. The patient does not feel the knife, and the operation is therefore enormously facilitated for the surgeon; but the patient pays for the anesthesia with hours of wretched sickness; and when that is over there is the pain of the wound made by the surgeon, which has to heal like any other wound. This is why operating surgeons, who are usually out of the house with their fee in their pockets before the patient has recovered consciousness, and who therefore see nothing of the suffering witnessed by the general practitioner and the nurse, occasionally talk of operations very much as the hangman in Barnaby Rudge talked of executions, as if being operated on were a luxury in sensation as well as in price.

MEDICAL POVERTY

To make matters worse, doctors are hideously poor. The Irish gentleman doctor of my boyhood, who took nothing less than a guinea, though he might pay you four visits for it, seems to have no equivalent nowadays in English society. Better be a railway porter than an ordinary English general practitioner. A railway porter has from eighteen to twenty-three shillings a week from the Company merely as a retainer; and his additional fees from the public, if we leave the third-class twopenny tip out of account (and I am by no means sure that even this reservation need be made), are equivalent to doctor's fees in the case of second-class passengers, and double doctor's fees in the case of first. Any class of educated men thus treated tends to become a brigand class, and doctors are no exception to the rule. They are offered disgraceful prices for advice and medicine. Their patients are for the most part so poor and so ignorant that good advice would be resented as impracticable and wounding. When you are so poor that you cannot afford to refuse eighteenpence from a man who is too poor to pay you any more, it is useless to tell him that what he or his sick child needs is not medicine, but more leisure, better clothes, better food, and a better drained and ventilated house. It is kinder to give him a bottle of something almost as cheap as water, and tell him to come again with another eighteenpence if it does not cure him. When you have done that over and over again every day for a week, how much scientific conscience have you left? If you are weak-minded enough to cling desperately to your eighteenpence as denoting a certain social superiority to the sixpenny doctor, you will be miserably poor all your life; whilst the sixpenny doctor, with his low prices and quick turnover of patients, visibly makes much more than you do and kills no more people.

A doctor's character can no more stand out against such conditions than the lungs of his patients can stand out against bad ventilation. The only way in which he can preserve his self-respect is by forgetting all he ever learnt of science, and clinging to such help as he can give without cost merely by being less ignorant and more accustomed to sick-beds than his patients. Finally, he acquires a certain skill at nursing cases under poverty-stricken domestic conditions, just as women who have been trained as domestic servants in some huge institution with lifts, vacuum cleaners, electric lighting, steam heating, and machinery that turns the kitchen into a laboratory and engine house combined, manage,
when they are sent out into the world to drudge as general servants, to pick up their business in a new way, learning the slatternly habits and wretched makeshifts of homes where even bundles of kindling wood are luxuries to be anxiously economized.

THE SUCCESSFUL DOCTOR

The doctor whose success blinds public opinion to medical poverty is almost as completely demoralized. His promotion means that his practice becomes more and more confined to the idle rich. The proper advice for most of their ailments is typified in Abernethy's "Live on sixpence a day and earn it." But here, as at the other end of the scale, the right advice is neither agreeable nor practicable. And every hypochondriacal rich lady or gentleman who can be persuaded that he or she is a lifelong invalid means anything from fifty to five hundred pounds a year for the doctor. Operations enable a surgeon to earn similar sums in a couple of hours; and if the surgeon also keeps a nursing home, he may make considerable profits at the same time by running what is the most expensive kind of hotel. These gains are so great that they undo much of the moral advantage which the absence of grinding pecuniary anxiety gives the rich doctor over the poor one. It is true that the temptation to prescribe a sham treatment because the real treatment is too dear for either patient or doctor does not exist for the rich doctor. He always has plenty of genuine cases which can afford genuine treatment; and these provide him with enough sincere scientific professional work to save him from the ignorance, obsolescence, and atrophy of scientific conscience into which his poorer colleagues sink. But on the other hand his expenses are enormous. Even as a bachelor, he must, at London west end rates, make over a thousand a year before he can afford even to insure his life. His house, his servants, and his equipage (or autopage) must be on the scale to which his patients are accustomed, though a couple of rooms with a camp bed in one of them might satisfy his own requirements. Above all, the income which provides for these outgoings stops the moment he himself stops working. Unlike the man of business, whose managers, clerks, warehousemen and laborers keep his business going whilst he is in bed or in his club, the doctor cannot earn a farthing by deputy. Though he is exceptionally exposed to infection, and has to face all weathers at all hours of the night and day, often not enjoying a complete night's rest for a week, the money stops coming in the moment he stops going out; and therefore illness has special terrors for him, and success no certain permanence. He dare not stop making hay while the sun shines; for it may set at any time. Men do not resist pressure of this intensity. When they come under it as doctors they pay unnecessary visits; they write prescriptions that are as absurd as the rub of chalk with which an Irish tailor once charmed away a wart from my father's finger; they conspire with surgeons to promote operations; they nurse the delusions of the malade imaginaire (who is always really ill because, as there is no such thing as perfect health, nobody is ever really well); they exploit human folly, vanity, and fear of death as ruthlessly as their own health, strength, and patience are exploited by selfish hypochondriacs. They must do all these things or else run pecuniary risks that no man can fairly be asked to run. And the healthier the world becomes, the more they are compelled to live by imposture and the less by that really helpful activity of which all doctors get enough to preserve them from utter corruption. For even the most hardened humbug who ever prescribed ether tonics to ladies whose need for tonics is of precisely the same character as the need of poorer women for a glass of gin, has to help a mother through child-bearing often enough to feel that he is not living wholly in vain.

THE PSYCHOLOGY OF SELF-RESPECT IN SURGEONS

The surgeon, though often more unscrupulous than the general practitioner, retains his self-respect more easily. The human conscience can subsist on very questionable food. No man who is occupied in doing a very difficult thing, and doing it very well, ever loses his self-respect. The shirk, the duffer, the malingering, the coward, the weakling, may be put out of countenance by his own failures and frauds; but the man who does evil skilfully, energetically, masterfully, grows prouder and bolder at every crime. The common man may have to found his self-respect on sobriety, honesty and industry; but a Napoleon needs no such props for his sense of dignity. If Nelson's conscience whispered to him at
all in the silent watches of the night, you may depend on it it whispered about the Baltic and the Nile and Cape St. Vincent, and not about his unfaithfulness to his wife. A man who robs little children when no one is looking can hardly have much self-respect or even self-esteem; but an accomplished burglar must be proud of himself. In the play to which I am at present preluding I have represented an artist who is so entirely satisfied with his artistic conscience, even to the point of dying like a saint with its support, that he is utterly selfish and unscrupulous in every other relation without feeling at the smallest disadvantage. The same thing may be observed in women who have a genius for personal attractiveness: they expend more thought, labor, skill, inventiveness, taste and endurance on making themselves lovely than would suffice to keep a dozen ugly women honest; and this enables them to maintain a high opinion of themselves, and an angry contempt for unattractive and personally careless women, whilst they lie and cheat and slander and sell themselves without a blush. The truth is, hardly any of us have ethical energy enough for more than one really inflexible point of honor. Andrea del Sarto, like Louis Dubedat in my play, must have expended on the attainment of his great mastery of design and his originality in fresco painting more conscientiousness and industry than go to the making of the reputations of a dozen ordinary mayors and churchwardens; but (if Vasari is to be believed) when the King of France entrusted him with money to buy pictures for him, he stole it to spend on his wife. Such cases are not confined to eminent artists. Unsuccessful, unskilful men are often much more scrupulous than successful ones. In the ranks of ordinary skilled labor many men are to be found who earn good wages and are never out of a job because they are strong, indefatigable, and skilful, and who therefore are bold in a high opinion of themselves; but they are selfish and tyrannical, gluttonous and drunken, as their wives and children know to their cost.

Not only do these talented energetic people retain their self-respect through shameful misconduct: they do not even lose the respect of others, because their talents benefit and interest everybody, whilst their vices affect only a few. An actor, a painter, a composer, an author, may be as selfish as he likes without reproach from the public if only his art is superb; and he cannot fulfill his condition without sufficient effort and sacrifice to make him feel noble and martyred in spite of his selfishness. It may even happen that the selfishness of an artist may be a benefit to the public by enabling him to concentrate himself on their gratification with a recklessness of every other consideration that makes him highly dangerous to those about him. In sacrificing others to himself he is sacrificing them to the public he gratifies; and the public is quite content with that arrangement. The public actually has an interest in the artist's vices.

It has no such interest in the surgeon's vices. The surgeon's art is exercised at its expense, not for its gratification. We do not go to the operating table as we go to the theatre, to the picture gallery, to the concert room, to be entertained and delighted: we go to be tormented and maimed, lest a worse thing should befall us. It is of the most extreme importance to us that the experts on whose assurance we face this horror and suffer this mutilation should leave no interests but our own to think of; should judge our cases scientifically; and should feel about them kindly. Let us see what guarantees we have: first for the science, and then for the kindness.

ARE DOCTORS MEN OF SCIENCE?

I presume nobody will question the existence of widely spread popular delusion that every doctor is a titan of science. It is escaped only in the very small class which understands by science something more than conjuring with retorts and spirit lamps, magnets and microscopes, and discovering magical cures for disease. To a sufficiently ignorant man every captain of a trading schooner is a Galileo, every organ-grinder a Beethoven, every piano-tuner a Hemholtz, every Old Bailey barrister a Solon, every Seven Dials pigeon dealer a Darwin, every scrivener a Shakespear, every locomotive engine a miracle, and its driver no less wonderful than George Stephenson. As a matter of fact, the rank and file of doctors are no more scientific than their tailors; or, if you prefer to put it the reverse way, their tailors are no less scientific than they. Doctoring is an art, not a science: any layman who is interested in science sufficiently to take in one of the scientific journals and follow the literature of the scientific movement, knows more about it than those doctors (probably a large majority) who are not interested in it, and practise only to earn their bread. Doctoring is not even the art of keeping people in health (no doctor seems able to advise you what to eat any better than his grandmother or the nearest quack): it is the art of curing illnesses. It does happen exceptionally that a practising doctor makes a
contribution to science (my play describes a very notable one); but it happens much oftener that he draws disastrous conclusions from his clinical experience because he has no conception of scientific method, and believes, like any rustic, that the handling of evidence and statistics needs no expertness. The distinction between a quack doctor and a qualified one is mainly that only the qualified one is authorized to sign death certificates, for which both sorts seem to have about equal occasion. Unqualified practitioners now make large incomes as hygienists, and are resorted to as frequently by cultivated amateur scientists who understand quite well what they are doing as by ignorant people who are simply dupes. Bone-setters make fortunes under the very noses of our greatest surgeons from educated and wealthy patients; and some of the most successful doctors on the register use quite heretical methods of treating disease, and have qualified themselves solely for convenience. Leaving out of account the village witches who prescribe spells and sell charms, the humblest professional healers in this country are the herbalists. These men wander through the fields on Sunday seeking for herbs with magic properties of curing disease, preventing childbirth, and the like. Each of them believes that he is on the verge of a great discovery, in which Virginia Snake Root will be an ingredient, heaven knows why! Virginia Snake Root fascinates the imagination of the herbalist as mercury used to fascinate the alchemists. On week days he keeps a shop in which he sells packets of pennyroyal, dandelion, etc., labelled with little lists of the diseases they are supposed to cure, and apparently do cure to the satisfaction of the people who keep on buying them. I have never been able to perceive any distinction between the science of the herbalist and that of the duly registered doctor. A relative of mine recently consulted a doctor about some of the ordinary symptoms which indicate the need for a holiday and a change. The doctor satisfied himself that the patient's heart was a little depressed. Digitalis being a drug labelled as a heart specific by the profession, he promptly administered a stiff dose. Fortunately the patient was a hardy old lady who was not easily killed. She recovered with no worse result than her conversion to Christian Science, which owes its vogue quite as much to public despair of doctors as to superstition. I am not, observe, here concerned with the question as to whether the dose of digitalis was judicious or not; the point is, that a farm laborer consulting a herbalist would have been treated in exactly the same way.

BACTERIOLOGY AS A SUPERSTITION

The smattering of science that all--even doctors--pick up from the ordinary newspapers nowadays only makes the doctor more dangerous than he used to be. Wise men used to take care to consult doctors qualified before 1860, who were usually contemptuous of or indifferent to the germ theory and bacteriological therapeutics; but now that these veterans have mostly retired or died, we are left in the hands of the generations which, having heard of microbes much as St. Thomas Aquinas heard of angels, suddenly concluded that the whole art of healing could be summed up in the formula: Find the microbe and kill it. And even that they did not know how to do. The simplest way to kill most microbes is to throw them into an open street or river and let the sun shine on them, which explains the fact that when great cities have recklessly thrown all their sewage into the open river the water has sometimes been cleaner twenty miles below the city than thirty miles above it. But doctors instinctively avoid all facts that are reassuring, and eagerly swallow those that make it a marvel that anyone could possibly survive three days in an atmosphere consisting mainly of countless pathogenic germs. They conceive microbes as immortal until slain by a germicide administered by a duly qualified medical man. All through Europe people are adjured, by public notices and even under legal penalties, not to throw their microbes into the sunshine, but to collect them carefully in a handkerchief; shield the handkerchief from the sun in the darkness and warmth of the pocket; and send it to a laundry to be mixed up with everybody else's handkerchiefs, with results only too familiar to local health authorities.

In the first frenzy of microbe killing, surgical instruments were dipped in carbolic oil, which was a great improvement on not dipping them in anything at all and simply using them dirty; but as microbes are so fond of carbolic oil that they swarm in it, it was not a success from the anti-microbe point of view. Formalin was squirted into the circulation of consumptives until it was discovered that formalin nourishes the tubercle bacillus handsomely and kills men. The popular theory of disease is the common medical theory: namely, that every disease had its microbe duly created in the garden of Eden, and has been steadily propagating itself and producing widening circles of malignant disease ever since. It was plain from the first that if this had been even approximately true, the whole human race would have been
wiped out by the plague long ago, and that every epidemic, instead of fading out as mysteriously as it rushed in, would spread over the whole world. It was also evident that the characteristic microbe of a disease might be a symptom instead of a cause. An unpunctual man is always in a hurry; but it does not follow that hurry is the cause of unpunctuality: on the contrary, what is the matter with the patient is sloth. When Florence Nightingale said bluntly that if you overcrowded your soldiers in dirty quarters there would be an outbreak of smallpox among them, she was snubbed as an ignorant female who did not know that smallpox can be produced only by the importation of its specific microbe.

If this was the line taken about smallpox, the microbe of which has never yet been run down and exposed under the microscope by the bacteriologist, what must have been the ardor of conviction as to tuberculosis, tetanus, enteric fever, Maltese fever, diphtheria, and the rest of the diseases in which the characteristic bacillus had been identified! When there was no bacillus it was assumed that, since no disease could exist without a bacillus, it was simply eluding observation. When the bacillus was found, as it frequently was, in persons who were not suffering from the disease, the theory was saved by simply calling the bacillus an impostor, or pseudobacillus. The same boundless credulity which the public exhibit as to a doctor's power of diagnosis was shown by the doctors themselves as to the analytic microbe hunters. These witch finders would give you a certificate of the ultimate constitution of anything from a sample of the water from your well to a scrap of your lungs, for seven-and-sixpence. I do not suggest that the analysts were dishonest. No doubt they carried the analysis as far as they could afford to carry it for the money. No doubt also they could afford to carry it far enough to be of some use. But the fact remains that just as doctors perform for half-a-crown, without the least misgiving, operations which could not be thoroughly and safely performed with due scientific rigor and the requisite apparatus by an unaidered private practitioner for less than some thousands of pounds, so did they proceed on the assumption that they could get the last word of science as to the constituents of their pathological samples for a two hours cab fare.

ECONOMIC DIFFICULTIES OF IMMUNIZATION

I have heard doctors affirm and deny almost every possible proposition as to disease and treatment. I can remember the time when doctors no more dreamt of consumption and pneumonia being infectious than they now dream of seasickness being infectious, or than so great a clinical observer as Sydenham dreamt of smallpox being infectious. I have heard doctors deny that there is such a thing as infection. I have heard them deny the existence of hydrophobia as a specific disease differing from tetanus. I have heard them defend prophylactic measures and prophylactic legislation as the sole and certain salvation of mankind from zymotic disease; and I have heard them denounce both as malignant spreaders of cancer and lunacy. But the one objection I have never heard from a doctor is the objection that prophylaxis by the inoculatory methods most in vogue is an economic impossibility under our private practice system. They buy some stuff from somebody for a shilling, and inject a pennyworth of it under their patient's skin for half-a-crown, concluding that, since this primitive rite pays the somebody and pays them, the problem of prophylaxis has been satisfactorily solved. The results are sometimes no worse than the ordinary results of dirt getting into cuts; but neither the doctor nor the patient is quite satisfied unless the inoculation "takes"; that is, unless it produces perceptible illness and disabusement. Sometimes both doctor and patient get more value in this direction than they bargain for. The results of ordinary private-practice-inoculation at their worst are bad enough to be indistinguishable from those of the most discreditable and dreaded disease known; and doctors, to save the credit of the inoculation, have been driven to accuse their patient or their patient's parents of having contracted this disease independently of the inoculation, an excuse which naturally does not make the family any more resigned, and leads to public recriminations in which the doctors, forgetting everything but the immediate quarrel, naively excuse themselves by admitting, and even claiming as a point in their favor, that it is often impossible to distinguish the disease produced by their inoculation and the disease they have accused the patient of contracting. And both parties assume that what is at issue is the scientific soundness of the prophylaxis. It never occurs to them that the particular pathogenic germ which they intended to introduce into the patient's system may be quite innocent of the catastrophe, and that the casual dirt introduced with it may be at fault. When, as in the case of smallpox or cowpox, the germ has not yet been detected, what you inoculate is simply
undefined matter that has been scraped off an anything but chemically clean calf suffering from the disease in question. You take your chance of the germ being in the scrapings, and, lest you should kill it, you take no precautions against other germs being in it as well. Anything may happen as the result of such an inoculation. Yet this is the only stuff of the kind which is prepared and supplied even in State establishments: that is, in the only establishments free from the commercial temptation to adulterate materials and scamp precautionary processes.

Even if the germ were identified, complete precautions would hardly pay. It is true that microbe farming is not expensive. The cost of breeding and housing two head of cattle would provide for the breeding and housing of enough microbes to inoculate the entire population of the globe since human life first appeared on it. But the precautions necessary to insure that the inoculation shall consist of nothing else but the required germ in the proper state of attenuation are a very different matter from the precautions necessary in the distribution and consumption of beefsteaks. Yet people expect to find vaccines and antitoxins and the like retailed at "popular prices" in private enterprise shops just as they expect to find ounces of tobacco and papers of pins.

By George Bernard Shaw