Copyrighted Material

Chapter One

Marco da Cola, gentleman of Venice, respectfully presents his greetings. I wish to recount the journey which I made to England in the year 1663, the events which I witnessed and the people I met, these being, I hope, of some interest to those concerned with curiosity. Equally, I intend my account to expose the lies told by those whom I once numbered, wrongly, amongst my friends. I do not intend to pen a lengthy self-justification, or tell in detail how I was deceived and cheated out of renown which should rightfully be mine. My recital, I believe, will speak for itself.

I will leave out much, but nothing of significance. A large part of my tour around that country was of interest only to myself, and finds no mention here. Many of those I met, similarly, were of little consequence. Those who in later years did me harm I describe as I knew them then, and I beg any reader to remember that, although I was hardly callow, I was not yet wise in the ways of the world. If my narrative appears simple and foolish, then you must conclude that the young man of so many years past was similarly so. I do not go back to my portrait to add extra layers of tint and varnish to cover my errors or the weakness of my draughtsmanship. I will make no accusations, and indulge in no polemic against others; rather, I will say what happened, confident that I need do no more.

My father, Giovanni da Cola, was a merchant, and for the last years of his life was occupied in the importation of luxury goods into England which, though an unsophisticated country, was none the less beginning to rouse itself from the effects of revolution. He had shrewdly recognised from afar that the return of King Charles II

Copyrighted Material

meant that vast profits would once again be there for the taking and, stealing a march on more timid traders, he established himself in London to provide the wealthier English with those luxuries which the Puritan zealots had discouraged for so many years. His business prospered: he had a good man in London in Giovanni di Pietro, and also entered into a partnership with an English trader, with whom he split his profit. As he once told me, it was a fair bargain: this John Manston was sly and dishonest, but possessed unrivalled knowledge of English tastes. More importantly, the English had passed a law to stop goods coming into their ports in foreign boats, and Manston was a way through this difficulty. As long as my father had di Pietro in place to keep an eye firmly on the accounts, he believed there was little chance of being cheated.

He was long past the time when he took a direct interest in his business, having already converted a portion of his capital into land on *terra firma* to prepare for admission to the Golden Book. Although a merchant himself, he intended his children to be gentlemen, and discouraged me from active participation in his business. I mention this as an indication of his goodness: he had noticed early on that I had little mind for trade, and encouraged me to turn my face against the life he led. He also knew that my sister's new husband was more fitted for ventures than I.

So, while my father secured the family name and fortune, I – my mother being dead and one sister usefully married – was in Padua to acquire the smatterings of polite knowledge; he was content to have his son a member of our nobility but did not wish to have me as ignorant as they. At this point and of mature years – I was now rising thirty – I was suddenly struck by a burning enthusiasm to become a citizen of the Republic of Learning, as it is called. This sudden passion I can no longer recall, so completely has it left me, but then the fascination of the new experimental philosophy held me under its spell. It was, of course, a matter of the spirit rather than of practical application. I say with Beroaldus, *non sum medicus, nec medicinae prorsus expers*: in the theory of physic I have taken some pains, not with an intent to practise, but to satisfy myself. I had neither desire nor need to gain a living in such a fashion, although occasionally, I confess with shame, I taunted my poor, good father

Copyrighted Material

by saying that unless he was kind to me, I would take my revenge by becoming a physician.

I imagine that he knew all along I would do no such thing, and that in reality I was merely captivated by ideas and people as exciting as they were dangerous. As a result, he raised no objections when I wrote to him about the reports of one professor who, though nominally charged with lecturing in rhetoric, spent much of his time enlarging upon the latest developments in natural philosophy. This man had travelled widely and maintained that, for all serious students of natural phenomena, the Low Countries and England were no longer to be disdained. After many months in his care, I caught his enthusiasm and, having little to detain me in Padua, requested permission to tour that part of the world. Kind man that he was, my father immediately gave his assent, procured permission for me to leave Venetian territory, and sent a bill of credit to his bankers in Flanders for my use.

I had thought of taking advantage of my position to go by sea, but decided that, if I was to acquire knowledge, then it would be best to see as much as possible and this was better done in a coach than by spending three weeks in a ship drinking with the crew. I must add that I also suffer abominably from sea-sickness – which weakness I have always been loath to admit, for although Gomesius says it cures sadness of spirit, I have never found it to be the case. Even so, my courage weakened, then evaporated almost entirely, as the journey progressed. The journey to Leiden took only nine weeks, but the sufferings I endured quite took my mind off the sights I was viewing. Once, stuck in the mud half-way through an Alpine pass, the rain coming down in torrents, one horse sick, myself with a fever and a violent-looking soldier as my only companion, I thought that I would rather suffer the worst gale in the Atlantic than such misery.

But it would have been as long to go back as to continue, and I was mindful of the scorn in which I would be held if I returned, shamefaced and weak, to my native town. Shame, I do believe, is the most powerful emotion known to man; most discoveries and journeys of importance have been accomplished because of the ignominy that would be the result if the attempt was abandoned. So, sick for the warmth and comfort of my native land – the English have the word *nostalgia* for this illness, which they believe is due to the imbalance

Copyrighted Material

caused by an unfamiliar environment – I continued on my way, ill tempered and miserable, until I reached Leiden, where I attended the school of medicine as a gentleman.

So much has been written about this seat of learning, and it has so little to do with my recital, that it suffices to say that I found and profited greatly from two professors of singular ability who lectured on anatomy and bodily economy. I also travelled throughout the Low Countries and fell into good company, much of which was English and from whom I learnt something of the language. I left for the simple reason that my kind father ordered me so to do and for no other reason. There was some disarray in the London office, a letter told me, and he needed family to intervene: no one else could be trusted. Although I had little practical knowledge of trade, I was glad to be the obedient son, so discharged my servant, organised my affairs, and shipped from Antwerp to investigate. I arrived in London on March 22nd, 1663 with only a few pounds left, the sum I paid to one professor for his teaching having all but exhausted my funds. But I was not concerned, for I thought that all I needed to do was make the short journey from the river to the office maintained by my father's agent, and all would be well. Fool that I was. I could not find di Pietro, and that wretched man John Manston would not even receive me. He is now long since dead; I pray for his soul, and hope the good Lord disregards my entreaties on his behalf, knowing as I do that the longer he suffers fiery torment, the more just his punishment will be.

I had to beg a mere servant for information, and this lad told me that my father's agent had died suddenly some weeks previously. Even worse, Manston had moved swiftly to take all the fortune and business for his own, and refused to admit that any had belonged to my father. Before lawyers he had produced documents (forged, naturally) to prove this assertion. He had, in other words, entirely defrauded my family of our money – that part of it which was in England, at least.

This boy was, unfortunately, at a loss about how I should proceed. I could lay a complaint before a magistrate, but with no evidence except my own convictions this seemed fruitless. I could also consult a lawyer but, if England and Venice differ in many ways, they are alike in one,

Copyrighted Material

which is that lawyers have an insatiable love of money, and that was a commodity I did not possess in sufficient quantity.

It also rapidly became clear that London was not a healthy place. I do not mean the famous plague, which had not yet afflicted the city; I mean that Manston, that very evening, sent round hired hands to demonstrate that my life would be more secure elsewhere. Fortunately, they did not kill me; indeed, I acquitted myself well in the brawl thanks to the fees my father had paid to my fencing master, and I believe at least one bravo left the field in a worse state than I. But I took the warning none the less and decided to stay out of the way until my course was clearer. I will mention little more of this matter except to say that eventually I abandoned the quest for recompense, and my father decided that the costs involved were not worth the money lost. The matter was reluctantly forgotten for two years, when we heard that one of Manston's boats had put into Trieste to sit out a storm. My family moved to have it seized – Venetian justice being as favourable to Venetians as English law is to Englishmen – and the hull and cargo provided some compensation for our losses.

To have had my father's permission to leave instantly would have raised my spirits immeasurably, for the weather in London was enough to reduce the strongest man to the most wretched despair. The fog, the incessant, debilitating drizzle, and the dull bitter cold as the wind swept through my thin cloak reduced me to the lowest state of despondency. Only duty to my family forced me to continue rather than going to the docks and begging for a passage back home. Instead of taking this sensible course, however, I wrote to my father informing him of developments and promising to do what I could, but pointed out that until I was re-armed from his coffers there was little I might practically accomplish. I had, I realised, many weeks to fill in before he could respond. And about five pounds to survive on.

The professor under whom I had studied in Leiden had most kindly given me letters to two gentlemen with whom he had corresponded, and, these being my only contacts with Englishmen, I decided that my best course would be to throw myself on their mercy. An additional attraction was that neither was in London, so I picked the man who lived in Oxford, that being the closest, and decided to leave as swiftly as possible.

Copyrighted Material

The English seem to have strong suspicion of people moving around, and go out of their way to make travel as difficult as possible. According to the piece of paper pasted up where I waited for the coach, the sixty-mile trip to Oxford would take eighteen hours – God Willing, as it added piously. The Almighty, alas, was not willing that day; rain had made much of the road disappear, so the coachman had to navigate his way through what seemed very like a ploughed field. A wheel came off a few hours later, tipping my chest on the ground and damaging the lid and, just outside a mean little town called Thame, one of the horses broke a leg and had to be dispatched. Add to that the frequent stops at almost every inn in southern England (the innkeepers bribe the drivers to halt) and the journey took a total of twenty-five hours, with myself ejected into the courtyard of an inn in the main street of the city of Oxford at seven o'clock in the morning.

Copyrighted Material

Chapter Two

From the way the English talk (their reputation for boasting is hard earned) an inexperienced traveller would imagine that their land contains the finest buildings, the biggest towns, the richest, best-fed, happiest people in the world. My own impressions were very different. One used to the cities of Lombardy, Tuscany and the Veneto cannot but be astonished at the tiny proportions of all settlements in that country as well as their paucity, for the land is almost empty of inhabitants and there are more sheep than people. Only London, *epitome Britannia* and a noble emporium, can compare with the great cities of the Continent; the rest are in mean estate, ruinous for the most part, poor and full of beggars by reason of the decay in trade caused by the late political turmoils. Though some of the buildings of the university are fine enough, Oxford has really only a few streets worth the notice, and you can scarcely walk for more than ten minutes in any direction without finding yourself outside the town and in open fields.

I had the address of a small lodging in the north of the city, on a broad street hard by the town walls, which was occupied by a foreign merchant who at one time had traded with my father. It was a sad sort of house and immediately opposite a site being razed for a new university building. The English made something of a fuss of this edifice, designed by a young and rather arrogant man I later encountered, who went on to make a name for himself by rebuilding the Cathedral of London after the great fire. This Christopher Wren's reputation is quite undeserved, as he has no sense of proportion, and little ability to construct a pleasing design. None the less, it was the first building in Oxford executed on modern principles, and aroused great excitement amongst those who knew no better.

Mr van Leeman, the merchant, offered me a warm drink but said

Copyrighted Material

regretfully that he could not provide more, as he had no room for me. My heart sank still lower, but at least he talked to me awhile, sat me by the fire and permitted me to attend to my toilet so that I could present a less alarming appearance when I ventured back into the world. He also told me something of the country I had come to visit. I was woefully ignorant of the place, except for what I had been told by the English of my acquaintance in Leiden, and knew little more than that twenty years of civil war were at an end. Van Leeman disabused me of any notion that the country was now a haven of peace and tranquillity, however. The king was indeed back, he said, but had so swiftly established a reputation for debauchery he had disgusted all the world. Already the strife which had led his father to war and the executioner's block was reappearing, and the outlook was gloomy indeed. Scarce a day passed without some rumour of insurrection, plot or rebellion being talked over in the taverns.

Not, he told me reassuringly, that this should concern me. The innocent traveller such as myself would find much of interest in Oxford, which boasted some of the most notable people in the new philosophy in the world. He knew of the Honourable Robert Boyle, the man for whom I had an introduction, and told me that if I wished to make my way into his society then I should go to the coffee shop owned by Mr Tillyard in the High Street, where the Chemical Club had held its meetings for several years, and which, moreover, could be relied upon to provide some warming food. Whether it was a help or a hint, I prepared myself and, begging only permission to leave my bags in his care until I had suitable accommodation, walked in the direction he indicated.

At this time, coffee in England was something of a craze, coming into the country with the return of the Jews. That bitter bean had little novelty for me, of course, for I drank it to cleanse my spleen and aid my digestion, but was not prepared to find it so much in fashion that it had produced special buildings where it could be consumed in extraordinary quantities and at the greatest expense. Mr Tillyard's establishment, in particular, was a fine and comfortable place, although having to hand over a penny to enter took me aback. But I felt unable to play the pauper, my father having taught me that the poorer you appear, the poorer you become. I paid with a cheerful

Copyrighted Material

countenance, then selected to take my drink to the Library, for which I had to pay another two pennies.

The clientèles of coffee houses choose themselves carefully, unlike taverns which cater to all sorts of low folk. In London, for example, there are Anglican houses and Presbyterian houses, houses where the scribblers of news or poetry gather to exchange lies, and houses where the general tone is set by men of knowledge who can read or pass an hour or so in conversation without being insulted by the ignorant or vomited on by the vulgar. Thus the *theorem* underlying my presence in this particular building. The *partum practicum* was rather different: the company of philosophers supposedly in residence did not leap up to welcome me, as I had hoped. In fact there were only four people in the room and, when I bowed at one of them – a weighty man with a red face, inflamed eye and lank, greying hair – he pretended not to have seen me. No one else paid much attention to my entrance either, apart from curious looks at one who was so obviously a man of some fashion.

My first venture into English society seemed a failure, and I resolved not to waste too much time on it. The one thing which detained me was the newspaper, a journal printed in London and then distributed around the country, a most novel idea. It was surprisingly frank about affairs, containing reports not only of domestic matters but also detailed accounts of events in foreign places which interested me greatly. I was later informed, however, that they were milk and water productions in comparison to a few years previously, when the passion of faction had brought forth a whole host of such organs. For the king, against the king, for Parliament, for the army, for or against this or that. Cromwell, and then the returned King Charles, did their best to restore some form of order, rightly surmising that such stuff merely lulls people into thinking that they understand Matters of State. And a more foolish notion can scarcely be imagined, it being obvious that the reader is only informed of what the writer wishes him to know, and is thus seduced into believing almost anything. Such liberties do nothing but convert the grubby hacksters who produce these tracts into men of influence, so that they strut around as though they were gentlemen of quality. Anyone who has ever met one of these English journalists (so called, I believe, because they are

Copyrighted Material

paid by the day, like any common ditch-digger) will know just how ridiculous that is.

None the less I read for above half an hour, intrigued by a report on the war in Crete, until a patter of feet up the stairs and the opening of the door disturbed my concentration. A brief glance disclosed a woman of, I suppose, about nineteen or twenty years of age, of average height but unnaturally slim of build: none of the plumpness that endows true beauty. Indeed, my medical self half-wondered whether she might have a tendency to consumption and might benefit from a pipe of tobacco every evening. Her hair was dark and had only natural curls in it, her clothes were drab (though well cared for) and, while she was pretty enough in the face, there was nothing obviously exceptional about her. Nevertheless, she was one of those people whom you look at, turn away from, then somehow find yourself looking at once more. Partly it was her eyes, which were unnaturally big and dark. But it was more her deportment, because it was so unfitting, which made me take notice. For that underfed girl had the bearing of a queen, and moved with an elegance which my father had spent a small fortune on dancing masters trying to instil in my youngest sister.

I watched her walk steadily up to the red-eyed gentleman on the other side of the room with little interest, and with only half an ear heard her address him as 'Doctor', then pause and stand there. He looked up at her with an air of alarm as she began to talk. I missed most of it – the distance, my English and her softness of voice all conspiring to snatch the meaning away – but I assumed from the few fragments I did hear that she was asking for his help as a physician. Unusual, of course, that someone of her servile state should think of coming to a physician, but I knew little of the country. Perhaps it was accepted practice here.

The request met with no favour, and this displeased me. By all means put the girl in her proper place; this is natural. Any man of breeding might well feel obliged to do so if addressed in an inappropriate manner. However, there was something in the man's expression – anger, disdain or something akin – which aroused my contempt. As Tully tells us, a gentleman should issue such a reproof

Copyrighted Material

with regret, not with a pleasure which demeans the speaker more than it corrects the offender.

'What?' he said, gazing around the room in a way which suggested he hoped no one would see. 'Go away, girl, at once.'

She again spoke in a low voice so that I did not catch her words.

'There is nothing I can do for your mother. You know that. Now, please, leave me alone.'

The girl raised her voice slightly. 'But sir, you must help. Don't think I am asking . . .' Then, seeing he was adamant, the girl's shoulders slumped with the weight of her failure, and she made for the door.

Why I got up, followed her down the stairs and approached her on the street outside, I do not know. Perhaps, like Rinaldo or Tancred, I entertained some foolish notion of chivalry. Perhaps, because the world had been bearing so oppressively on me in the past few days, I had sympathy for the way it was treating her. Perhaps I was feeling cold and tired, and so sunk down by my troubles that even approaching such as she became acceptable. I do not know; but before she had gone too far, I approached her and coughed politely.

She swung round, fury in her face. 'Leave me alone,' she snapped, very violently.

I must have reacted as though she had slapped me; I know I bit my lower lip and said, 'Oh!' in surprise at her response. 'I do beg your pardon, madam,' I added in my best English.

At home, I would have behaved differently: courteously, but with the familiarity that establishes who is the superior. In English, of course, such subtleties were beyond me; all I knew was how to address ladies of quality, and so that was the way I talked to her. Rather than appear a semi-educated fool (the English assume that the only reasons for not understanding their language are either stupidity or wilful stubbornness) I decided that I had best match my gestures to my language, as though I actually intended such *politesse*. Accordingly, I gave the appropriate bow as I spoke.

It was not my intention, but it rather took the wind out of her sails, to use a nautical expression beloved of my dear father. Her anger faded on finding itself met with gentility rather than rebuke,

Copyrighted Material

and she looked at me curiously, a little wrinkle of confusion playing most attractively over the bridge of her nose.

Having started in this vein, I resolved to continue. 'You must forgive me for approaching you in this fashion, but I could not help overhearing that you have need of physick. Is that correct?'

'You are a doctor?'

I bowed. 'Marco da Cola of Venice.' It was a lie, of course, but I was sure I was at least as able as the sort of charlatan or quack she would normally have engaged. 'And you?'

'Sarah Blundy is my name. I suppose you are too grand to treat an old woman with a broken leg, for fear of lowering yourself in the eyes of your fellows?'

She was, indeed, a difficult person to help. 'A surgeon would be better and more appropriate,' I agreed. 'However, I have trained in the anatomical arts at the universities of Padua and Leiden, and I have no fellows here, so they are unlikely to think any the worse of me for playing the tradesman.'

She looked at me, then shook her head. 'I'm afraid that you must have overheard wrongly, although I thank you for your offer. I cannot pay you anything, as I have no money.'

I waved my hand airily and – for the second time that day – indicated that money was of no concern to me. 'I offer my services, none the less,' I continued. 'We can discuss that payment at a later stage, if you wish.'

'No doubt,' she said in a way which again left me perplexed. Then she looked at me in the open and frank way which the English can adopt, and shrugged.

'Perhaps we could go and see the patient?' I suggested. 'And you could tell me what happened to her as we go?'

I was as keen as young men are to engage the attention of a pretty girl, whatever her station, but I won little reward for my efforts. Although she was not nearly as well dressed as I, her limbs showing through the thin cloth of her dress, her head only as covered as decorum dictated, she seemed not at all cold, and scarcely appeared even to notice the wind, which cut through me like a knife. She walked fast as well, and even though she was a good two inches shorter than myself, I had to hurry to keep up. And her replies were brief and

Copyrighted Material

monosyllabic, which I put down to concern and preoccupation with her mother's health.

We walked back to Mr van Leeman's to collect my instruments and I also hastily consulted Barbette on surgery, not wishing to have to refer to a book of instruction in mid-operation, as this does not reassure the patient. The girl's mother had, it appeared, fallen heavily the previous evening and had lain alone all night. I asked why she had not called out to some neighbours or passers by, as I assumed that the poor woman would scarcely have been living in splendid seclusion, but this received no useful response.

'Who was that man you were talking to?' I asked.

I got no answer to that either.

So, adopting a coldness that I thought appropriate, I walked by her side down a mean street called Butcher's Row, past the stinking carcasses of animals hung on hooks or laid out over rough tables outside so that the rain could wash the blood into the gutters, then continued into an even worse row of low dwellings that lay alongside one of the rivulets that run around and about the castle. It was utterly filthy down there, the streams clogged and unkempt, with all manner of refuse poking through the thick ice. In Venice, of course, we have the flow of the sea which every day purges the city's waterways. The rivers in England are left to block themselves up, without anyone thinking that a little care might sweeten the waters.

Of the miserable huts down in that part of the town, Sarah Blundy and her mother lived in one of the worst: small, with the casements boarded with planks of wood rather than paned with glass, the roof full of holes blocked with cloth, and the doorway thin and mean. Inside, however, everything was spotlessly clean, though damp; a sign that even in such reduced circumstances, some pride in life can continue to flicker. The little hearth and the floorboards were scrubbed, the two rickety stools were similarly looked after, and the bed, although rough, had been polished. Apart from that, the room had no furniture beyond those few pots and platters which even the lowest must have. One thing did astonish me: a shelf of at least half-a-dozen books made me realise that, at some stage at least, some man had inhabited these quarters.

Copyrighted Material

'Well,' I said in the cheerful way my master in Padua had employed as a means of inspiring confidence, 'where is the invalid, then?'

She pointed to the bed, which I had thought empty. Huddled under the thin covering was a little broken bird of a woman, so small it was difficult to imagine she was anything but a child. I approached and gently pulled down the covers.

'Good morning, madam,' I said. 'I'm told you've had an accident. Let us have a look at you.'

Even I realised instantly that it was a serious injury. The end of the shattered bone had pushed through the parchment-like skin and protruded, broken and bloody, into the open air. And if that wasn't bad enough, some bungling fool had evidently tried to force it back into place, tearing more flesh, then simply wrapped a piece of dirty cloth around the wound, so that the threads had stuck to the bone as the blood had congealed.

'Holy Mary, Mother of God,' I cried in exasperation, fortunately in Italian. 'What idiot has done this?'

'She did it herself,' the girl said quietly when I repeated this last in English. 'She was all on her own, and did what she could.'

It looked very bad indeed. Even with a robust young man, the inevitable weakness from such a wound would have been serious. Then there was the possibility of rot setting in and the chance that some of the threads would create an irritation in the flesh. I shivered at the thought, then realised that the room was bitterly cold.

'Go and light a fire immediately. She must be kept warm,' I said.

She stood there, unmoving.

'Can't you hear me? Do as I say.'

'We don't have anything to burn,' she said.

What could I do? It was hardly fitting or dignified, but sometimes the task of the physician goes beyond merely tending to physical ailment. With some impatience, I pulled a few pence from my pocket. 'Go and buy some wood, then,' I said.

She looked at the pennies I had thrust into her palm, and, without so much as a word of thanks, silently went out of the room into the alleyway beyond.

'Now then, madam,' I said, turning back to the old lady, 'we will

Copyrighted Material

soon have you nice and warm. That is most important. First we have to clean up this leg of yours.'

And so I set to work; fortunately the girl came back quickly with wood and some embers to light a fire, so that I soon had hot water. I thought that if I could clean it up fast enough, if I could reset the broken bone without causing her so much discomfort that she died, if she didn't develop a fever or some distemper in the wound, if she was kept warm and well fed, she might live. But there were a lot of dangers; any one of them could kill her.

Once I began she seemed alert enough, which was a good start, although considering the pain I was giving her a corpse would have become aware of its surroundings. She told me that she had slipped on a patch of ice and fallen badly, but apart from that she was initially as uncommunicative as her daughter, although with more excuse.

Perhaps the more thoughtful, and those who were more proud, might have walked away the moment that the girl confessed she had no money; perhaps I could have left when it became clear there was no heating; certainly I should have refused outright even to have contemplated the provision of any sort of medicines to the woman. It is not for oneself, of course; there is the reputation of the profession to be considered in these matters. But in all conscience, I could not bring myself to act as I should have done. Sometimes being a Gentleman and Physician do not always sit easily together.

Also, although I had studied the proper way of cleansing wounds and setting bones, I had never had the opportunity to do so in practice. It was very much more difficult than the lectures had made it seem and I fear that I caused the old lady considerable suffering. But eventually the bone was set and the leg bound, and I dispatched the girl with more of my scarce pennies to buy materials for a salve. While she was gone, I cut some lengths of wood and bound them to the leg to try and ensure that, were she lucky enough to survive, the shattered bone would knit correctly.

By this stage I was in no good humour. What was I doing here, in this provincial, unfriendly, miserable little town, surrounded by strangers, such a long way away from everything I knew and everyone who cared for me? More to the point, what was going to happen when,

Copyrighted Material

as was bound to occur very shortly, I found myself without money to pay for lodging, or food?

Bound up in my own despair, I completely ignored my patient, feeling I had done more than enough for her already, and found myself examining the little shelf of books; not out of interest, but merely as a way of turning my back on her so that I could avoid looking at the poor creature who was rapidly becoming the symbol of my misfortunes. This sentiment was compounded by the fact that I feared that all my efforts and expense were going to prove a waste: even though I was young and inexperienced, I already knew death when I stared it in the face, smelt its breath and touched the sweat it produced on the skin.

'You are unhappy, sir,' the old lady said in a frail voice from her bed. 'I'm afraid that I am a great trouble to you.'

'No, no. Not at all,' I said with the flatness of deliberate insincerity.

'It is kind of you to say so. But we both know that we cannot pay you money for your help, as you deserve. And I saw from the look in your face that you are not a rich man yourself at the moment, despite your dress. Where do you come from? You are not from around here.'

Within a few minutes, I found myself perched on one of the rickety stools by the bedstead, pouring out my heart about my father, my lack of money, my reception in London, my hopes and fears for the future. There was something about her that encouraged such confidences, almost as though I was talking to my old mother, not to some poor, dying, heretical Englishwoman.

Throughout she nodded patiently and spoke to me with such wisdom that I felt comforted. It pleased God to send us trials, just as He did with Job. Our duty is to bear them quietly, use the skills He has given us to overcome them, and never to abandon our faith that His design was good and necessary. More practically, she told me I must certainly visit Mr Boyle; he was known as a good Christian gentleman.

I suppose I should have scorned this combination of puritanical piety and impertinent advice. But I could see that, in her way, she was trying to make amends. She could offer no money, and no service.

Copyrighted Material

What she could give was understanding, and in the coin that she had she paid freely.

'I shall soon be dead, shall I not?' she asked after she had listened to my woes for a good long while and I had exhausted the topic of my hardship.

My master in Padua had always warned about such questions: not least because one might be wrong. He always believed that the patient has no right to confront the physician in such a way; if one is right and the patient does die, it merely makes them morose for the last few days of their life. Rather than composing themselves for their imminent ascent into the presence of God (an event to be desired rather than regretted, one might think), most people complain bitterly at having this divine goodness thrust upon them. On top of this, they tend to believe their physicians. In moments of frankness, I confess that I do not know why this is the case; none the less, it seems that if a physician tells them they will die, many dutifully oblige, even though there may be little wrong with them.

'We will all die in due course, madam,' I said gravely, in the vain hope that this might satisfy her.

However, she was not the sort of person who could be fobbed off. She had asked the question calmly and was plainly able to tell truth from the opposite.

'But some sooner than others,' she replied with a little smile. 'And my turn is near, is it not?'

'I really cannot say. It may be that no corruption will set in, and you will recover. But, in truth, I fear that you are very weak.' I could not actually say to her: Yes, you will die, and very soon. But the sense was clear enough.

She nodded placidly. 'I thought so,' she said. 'And I rejoice in God's will. I am a burden to my Sarah.'

Come l'oro nel foco, così la fede nel dolor s'affina. I hardly felt like defending the daughter, but muttered that I was sure she performed her obligations with a happy heart.

'Yes,' she said. 'She is too dutiful.' She was a woman who spoke with a decorum far beyond her station and education. I know that it is not impossible for rude surroundings and coarseness of upbringing to bring forth gentleness, but experience teaches us that it is rare. Just as

Copyrighted Material

refinement of thought naturally requires refinement of circumstance, so brutality and squalor in life begets the same in the soul. Yet this old woman, although surrounded by the meanest of states, talked with a sympathy and understanding I have often failed to meet with in the very best of people. It made me take an unwonted interest in her as a patient. Subtly, and without even becoming aware of it, I moved from seeing her as a hopeless case: I may not be able to cheat death, I found myself thinking grimly, but at least I will make him work for his prize.

Then the girl returned with the little packet of medicines that I had demanded. Staring at me, as though challenging me to criticise, she said that I had not given her enough: but Mr Crosse the apothecary had allowed her to have twopence credit, when she had promised I would settle the account. I was speechless with indignation at this, because the girl seemed to be rebuking me for having sent her out with insufficient money. But what could I do about it? The money was spent, the patient was waiting, and it was beneath me to enter an argument.

Maintaining an outward show of imperturbability, I took my portable pestle and mortar and began to grind up the ingredients; some mastick for sticking, a grain of sal ammoniack, two of frankincense, a dram of white vitriol and two grains of nitre and verdigrice both. Once these were pounded into a smooth paste, I then added linseed oil, drop by drop, until the mixture had reached the right degree.

'Where is the powder of worms?' I asked, searching in the bag for the final ingredients. 'Did they not have any?'

'Yes,' she said. 'At least I imagine so. But it is no use, you know, so I decided not to buy it. It saved some money for you.'

This was too much. To be treated with insolence was one thing and quite common with daughters, but to be questioned and doubted in one's area of skill was quite another.

'I told you I needed it. It is a crucial ingredient. Are you a physician, girl? Have you trained at the best schools in medicine? Do physicians come to you asking for advice?' I asked with a superior sneer in my voice.

'Yes, they do,' she replied calmly.

Copyrighted Material

I snorted. 'I don't know whether it is worse to be dealing with a fool or a liar,' I said angrily.

'Nor do I. All I know is that I am neither. Putting worm powder on a wound is tantamount to making sure my mother loses her leg and dies.'

'Are you Galen then? Paracelsus? Perhaps Hippocrates himself?' I stormed. 'How dare you question the authority of your betters? This is a salve that has been in use for centuries.'

'Even though it is useless?'

While this was going on I had been applying the salve to her mother's wound, then rebandaging it. I was doubtful about whether it would work, incomplete as it was, but would have to do until I could make it up properly. Once finished, I stood up to my full height, and, of course, bumped my head against the low ceiling. The girl suppressed a giggle, which made me the more angry.

'Let me tell you one thing,' I said with barely suppressed fury, 'I have treated your mother to the best of my ability, even though I was not obliged to. I will come back later to give her a sleeping draught and to air the wound. This I do knowing that I will receive nothing in return but your contempt, although I cannot see that I have deserved it or that you have any right to speak to me in such a fashion.'

She curtseyed. 'Thank you, kind sir. And as for payment, I'm sure you will be satisfied. You said we can deal with that later, and I have no doubt we will.'

With that I walked out of the house and back into the street, shaking my head and wondering what den of lunatics I had tumbled into so carelessly.

Copyrighted Material

Chapter Three

I hope that this account explains the first two stages of my progress: my coming to England and then to Oxford, and my acquisition of the patient whose treatment was to cause me such grief. The girl herself – what can I say? She was touched by doom already; her end was written, and the devil was reaching out his hand to drag her down. The man of skill can see this, can read a face like an open book and discern what the future holds in store. Sarah Blundy's face was deep scored already with the evil that had gripped her soul and would shortly destroy her. So I told myself after, and it may be true. But at that time I saw nothing more than a girl as insolent as she was pretty, and as careless of her obligations to her superiors as she was mindful of her duty to her family.

I need now to explain my further progress, which was just as accidental although ultimately more cruel in its effects: the more so because it seemed, for a while, as though fortune had begun to smile on me once more. I had been left with the task of paying off the debts she had so impertinently run up for me at the apothecary's, and I knew that you annoy apothecaries at your peril if you are concerned with experimental knowledge. Omit to pay, and they are quite likely to refuse you in the future, and not only them but all their fellows for miles around, so closely do they stick together. In the circumstances, that would be the final straw. Even if it was my last penny I could not afford to enter the society of English philosophy as a man of bad credit.

So I asked the way to this Mr Crosse's shop, and walked half-way along the High Street once more, opening the wooden door in the shop front and going into the warmth of the interior. It was a handsome place, nicely laid out as all English shops are, with fine cedarwood counters and beautiful brass balances of the most

Copyrighted Material

up-to-date variety. Even the aromas of the herbs and spices and drugs welcomed me as I moved strategically across the polished oak floor until I stood with my back against the fine carved mantelpiece and the roaring fire in the grate.

The owner, a portly man in his fifties who looked decidedly at ease with life, was dealing with a customer who seemed in no hurry, leaning nonchalantly on the table, chattering quite idly. He was perhaps a year or two older than myself, with a lively, active face and bright, if cynical, eyes below heavy, arching brows. In dress he was in a sombre garb that steered between the extremes of puritanical drabness and the extravagance of fashion. It was, in other words, well cut but of a tedious brown.

For all that he had an easy manner, this customer seemed very self-conscious, and I discerned that Mr Crosse was amusing himself at the man's expense.

'Keep you warm in winter, as well,' the apothecary was saying with a broad grin.

The customer wrinkled up his face in pain.

'Course, when spring comes you'll have to put netting over, in case the birds start nesting in it,' he went on, clutching his sides in merriment.

'Come now, Crosse, that's enough,' protested the man, then began laughing himself. 'Twelve marks it cost . . .'

This sent Crosse into greater paroxysms of laughter, and soon both of them were leaning over, helpless and in virtual hysteria.

'Twelve marks!' wheezed the apothecary, before collapsing once more.

I even found myself beginning to giggle with amusement, even though I had not the slightest idea what they were talking about. I didn't even know whether it was considered ill manners in England to interpose oneself into the merriment others, but the fact was that I didn't care. The warmth of the shop and the open good humour of these two, as they clung to the counter to avoid slipping on to the floor in their helplessness, made me want to laugh with them, to celebrate the first normal human society I had experienced since my arrival. Instantly I felt restored by it for, as Gomesius says, merriment cures many passions of the mind.

Copyrighted Material

My slight giggling attracted their attention, however, and Mr Crosse attempted to restore himself to the dignified posture that his trade required. His comrade did likewise and both turned to look at me; a sombre silence reigned for a few seconds, then the younger man pointed at me, and both of them lost control once more.

'Twenty marks!' cried the young man waving in my direction, then banging his fist on the counter. 'At least twenty.'

I counted this as being the nearest thing to an introduction that I was likely to receive and, with some wariness, made a polite bow in their direction. I half-suspected some appalling joke at my expense. The English love making fun of foreigners, whose mere existence they regard as an enormous jest.

My bow to equals – perfectly executed, with just the right balance between the extended left leg, and the graciously elevated right arm – none the less set them off again, so I stood with the impassivity of a stoic as I waited for the storm to pass. And in due course, the gurglings faded, they wiped their eyes, blew their noses, and did their best to appear like civilised people.

'I must beg your pardon, sir,' said Mr Crosse, who was the first to regain both the power of speech and the grace to use it civilly. 'But my friend here has just decided to become a man of fashion, and has taken to appearing in public with a thatched roof on his head. I was doing my best to assure him that he cuts a very fine figure indeed.' He began heaving with mirth again, and his friend then tore off his wig and threw it on the ground.

'Fresh air at last,' he exclaimed thankfully as he ran his fingers through his thick, long hair. 'Dear Lord, it was hot under there.'

At last I was beginning to make sense of it; the wig had arrived in Oxford – several years after it had established itself throughout most of the world as an essential part of elegant masculine dress. I was wearing one myself, having adopted it as a sign, so to speak, of my graduation into the adult world.

I could see, of course, why it caused such amusement, although the understanding was overborne by that sense of superiority felt by a man of parts when he encounters the provincial. When I began wearing my wig myself it took some considerable time to grow used to it; only pressure from my fellows persuaded me to continue. And,

Copyrighted Material

of course, looking at it as a Turk or an Indian might were he suddenly transported to our shores, it did seem slightly odd that a man, graced by nature with a full head of hair, should shave much of it off in order to wear somebody else's. But fashionable attire is not for comfort and, as it was profoundly uncomfortable, we may conclude that the wig was very fashionable.

'I think', I said, 'that you might find it more comfortable if you shortened your own hair; then there would not be so much pressure under the mat.'

'Shorten my own hair? Good heavens, is that how it's done?'

'I'm afraid so. We must sacrifice for beauty, you know.'

He kicked the wig roughly across the floor. 'Then let me be ugly,' he said, 'for I will not be seen in public wearing this. If it produces convulsions in Crosse here, think what the students of this town will do to me. I'll be lucky to escape with my life.'

'They are the very height of fashion elsewhere,' I commented. 'Even the Dutch wear them. I think it is a question of timing. In a few months, or maybe a year, you may find that they hoot and throw stones at you if you do not wear one.'

'Bah! Ridiculous,' he said, but none the less scooped the wig up off the floor and placed it more safely on the counter.

'I'm sure this gentleman has not come here to discuss fashion,' Crosse said. 'Perhaps he even wishes to buy something? It has been known.'

I bowed. 'No. I have come to pay for something. I believe you extended credit to a young girl not so long ago.'

'Oh, the Blundy girl. You are the man she mentioned?'

I nodded. 'It seems that she spent my money a little freely. I have come to settle her – or rather my – debt.'

Crosse grunted. 'You won't be paid, you know, not in money.'

'So it appears. But it is too late for that now. Besides, I set her mother's leg, and it was interesting to see whether I could do so; I'd learnt a great deal about it in Leiden, but never tried it on a living patient.'

'Leiden?' said the young man with sudden interest. 'Do you know Sylvius?'

'Indeed,' I said. 'I studied anatomy with him; and I have a letter

Copyrighted Material

from him with me for a gentleman called Mr Boyle.'

'Why didn't you say so?' he asked, and walked to the door at the back of the shop and opened it. I could see a flight of stairs in the corridor beyond.

'Boyle?' he yelled. 'Are you up there?'

'No need to shout, you know,' Crosse said. 'I can tell you. He isn't. He went to the coffee house.'

'Oh. No matter. We can go and find him. What's your name, by the way?'

I introduced myself. He bowed in return, and said: 'Richard Lower, at your service. A physician. Almost.'

We bowed once more and, that done with, he clapped me on the shoulders. 'Come along. Boyle will like to meet you. We've been feeling a little cut off up here recently.'

As we walked the short distance back to Tillyard's, he explained that the ferment of intellectual life in the town had ceased to bubble as it had in the past, due to the return of the king.

'But I heard His Majesty is a lover of learning,' I said.

'So he is, when he can tear his attention away from his mistresses. That's the trouble. Under Cromwell, we eked out our existence here, while all the lucrative places in the state went to butchers and fish sellers. Now the king is back and naturally, all those well placed enough to take advantage of his generosity have gone to London, leaving a rump of us up here. I'm afraid I shall have to try to make a name for myself there as well, sooner or later.'

'Hence the wig?'

He grimaced. 'Yes, I suppose so. One must cut a dash in London to be noticed at all. Wren was back here a few weeks ago – he's a friend of mine, a fine fellow – decked out like a peacock. He's planning a trip to France soon and we'll probably have to shade our eyes just to look at him when he gets back.'

'And Mr Boyle?' I asked, my heart sinking a little. 'He has – ah, decided – to stay in Oxford?'

'Yes, for the time being. But he's lucky. He's got so much money he doesn't have to fish for positions like the rest of us.'

'Oh,' I said, greatly relieved.

Lower gave me a look which indicated that he understood perfectly

Copyrighted Material

what had been going through my mind. 'His father was one of the richest men in the kingdom and a fervent supporter of the Old King, bless his memory, as I suppose we should. Naturally, a lot of it was dispersed, but there's enough left for Boyle not to have the concerns of ordinary mortals.'

'Ah.'

'A fine person to know, if you are inclined to philosophical knowledge, which is his main interest. If you're not, of course, he won't pay much attention to you.'

'I have done my best', I said modestly, 'with some experimentation. But I'm afraid that I am only a novice. What I do not know or understand greatly outweighs what I do.'

The answer seemed to please him mightily. 'In that case you will be in good company,' he said with a grin. 'Add us all together and our ignorance is almost complete. Still, we scratch at the surface. Here we are,' he went on, as he led the way back into the very same coffee house. Mrs Tillyard again approached, wanting another copper off me, but Lower waved her away. 'Fiddlesticks, madam,' he said cheerfully. 'You will not charge a friend of mine for entry into this bawdy house.'

Loudly demanding that coffee be brought to us instantly, Lower bounded up the stairs to the room I had previously selected. It was then that I had the horrible thought: what if this Boyle were the unpleasant gentleman who had turned away the girl?

But the man sitting in the corner whom Lower immediately approached could not have been more different. I suppose I should here pause and describe the Honourable Robert Boyle, a man who has had more praise and honour heaped upon him than any philosopher for centuries. The first thing I noticed was his relative youth; his reputation had led me to expect a man certainly over fifty. In fact, he was probably no more than a few years older than myself. Tall, gaunt and obviously with a weak constitution, he had a pale, thin face with a strangely sensual mouth, and sat with a poise and a degree of ease that instantly indicated his noble upbringing. He did not appear so very agreeable; haughty rather, as though he was fully aware of his superiority and expected others to be as well. This, I later learned, was only part of the story, for his pride was matched by his generosity;

Copyrighted Material

his haughtiness by his humility; his rank by his piety; and his severity by his charity.

None the less, he was a person to be approached with care for, while Boyle tolerated some truly dreadful creatures because of their merit, he would not put up with charlatans or fools. I count it as one of the greatest honours of my life that I was allowed, for a while, to associate with him on terms of ease. Losing this connection through the malice of others was one of the bitterest blows I have had to endure.

For all his wealth, reputation and birth, he tolerated familiarity from his intimates, of whom Lower, evidently, was one. 'Mr Boyle,' he said as we approached, 'someone from Italy to pay homage at your shrine.'

Boyle looked up with raised eyebrows then permitted himself a brief smile. 'Good morning, Lower,' he said dryly. I noticed then and later that Lower constantly mis-stepped himself in his dealings with Boyle, as he considered himself an equal in matters of science, but was all too conscious of his own inferiority in rank, and so moved from an excessive familiarity to a respect which, although not obsequious, was still far from assured and comfortable.

'I bring you greetings from Dr Sylvius of Leiden, sir,' I said. 'He suggested that, as I was to come to England, you might permit me to make your acquaintance.'

I always feel that introductions are one of the most difficult of areas of etiquette. Naturally, they exist, and will always continue. How else could a total stranger be accepted except under the patronage of a gentleman who can vouch for his character? In most circles, however, the mere existence of a letter is enough; if they are read, it is generally after the introductions have been performed. I hoped that a letter from Sylvius, a physician as famous in medicine as was Boyle in chemistry, would ensure me a welcome. But I was also aware that divisions ran deep, and that my religion might well cause me to be rejected. England had only recently been in the grip of fanatical sectarians, and I knew their influence was far from dissipated – my colleagues in the coach to Oxford overnight had informed me with glee of the new persecutory laws against us that the Parliament had forced the king to adopt.

Copyrighted Material

Boyle not only took the letter and began to read it, but also commented on its contents as he progressed, making me ever more nervous as he did so. It was, I saw, rather a long missive; Sylvius and I had not always seen eye to eye, and I greatly feared that much of the letter would be uncomplimentary.

And so it seemed as Boyle read. 'Hmm,' he said. 'Listen to this, Lower. Sylvius says your friend here is impetuous, argumentative and much given to querying authority. Impertinent, and a positive gadfly in his interests.'

I made to defend myself, but Lower gestured for me to be quiet. 'Family of gentlemen merchants in Venice, eh?' Boyle went on. 'Papist, I suppose?'

My heart sank.

'A veritable fiend for blood,' Boyle went on, ignoring me totally. 'Constantly fiddling with buckets of it. But a good man with a knife, it seems, and a fine draughtsman. Hmm.'

I resented Sylvius for his statements. To call my experimentation fiddling made me hot with indignation. I had begun methodically and proceeded in what I thought was a rational manner. It was, after all, hardly my fault that my father's summons made me leave Leiden before I had come to any conclusions of substance.

Since it is of some moment to my story, I should make it clear that my interest in blood was no new-found fancy, but by this stage had preoccupied me for some time. I can scarcely recall when the fascination began. I remember once listening to some tedious Galenist lecturing on blood in Padua and the very next day being lent a copy of Harvey's magnificent work on circulation. It was so clear, so simple, and so obviously *true* that it took my breath away. I have not had an experience like it since. However, even I could see that it was incomplete: Harvey demonstrated that the blood starts in the heart, circulates around the body, then returns whence it came. He did not establish *why* it does this, and without that science is a poor thing indeed; nor did he proffer any therapeutic gain from his observations. Perhaps impertinently, but certainly with reverence, I had dedicated many months in Padua and nearly all my time in Leiden to exploring this subject and I would have already achieved some notable experiments had I not obeyed my father's desires and come to England.

Copyrighted Material

'Good,' Boyle said eventually, folding the letter carefully and putting it in his pocket. 'You are welcome sir, more than welcome. Above all to Mr Lower, I imagine, as his insatiable lust for entrails seems to be matched only by your own.'

Lower grinned at me and offered the saucer of coffee which had been growing cold as Boyle read. It seemed that I had been put to the test and found adequate. The relief I felt was almost overwhelming.

'I must say', Boyle went on pouring quantities of sugar in his coffee, 'that I am all the more pleased to welcome you because of your behaviour.'

'My what?' I asked.

'Your offer of assistance to the Blundy girl – remember her, Lower? – was charitable and Christian,' he said, 'if a little unwise.'

I was astounded by this comment, so convinced had I been that no one had paid me the slightest attention. I had entirely misjudged the degree to which the slightest breath of anything can exert fascination in such a small town.

'But who is this girl whom you both know?' I asked. 'She seemed a very poor creature and hardly the type who would ordinarily come to your attention. Or have years of republicanism levelled ranks to such an extent?'

Lower laughed. 'Fortunately not. People like the Blundy girl are not normally members of our society, I'm pleased to say. She's pretty enough, but I would be reluctant to be known to consort with her. We know her as she has a certain notoriety – her father Ned was a great subversive and radical, while she supposedly has some knowledge of natural remedies. Boyle here consulted her over some herbal simples. It is a pet project of his, to provide the poor with medicines fitting their rank.'

'Why supposedly?'

'Many have attested to her skill in curing, so Boyle thought he would do her the honour of incorporating some of her better receipts into his work. But she refused to help, and pretended she had no ability at all. I imagine she wanted payment, which Boyle properly refused to countenance for a work of benevolence.'

At least that explained the girl's comment which I had dismissed as a lie. 'Why is it unwise to associate with her, though?'

Copyrighted Material

'Her society will do you little credit,' Boyle said. 'She has a reputation for lewdness. But I particularly meant that she will not prove a lucrative client.'

'I have discovered that already,' I replied, and told him of the way she had spent my money. Boyle looked mildly shocked by the tale. 'Not the way to grow rich,' he observed dryly.

'What is the supply of physicians here? Do you think I could gain some clients?'

Lower grimaced and explained that the trouble with Oxford was that there were far too many doctors already. Which was why, when he had finished a project he was undertaking, and Christ Church ejected him from his place, he would be forced to go to London. 'There are at least six,' he said. 'And any number of quacks, surgeons, and apothecaries. All for a town of 10,000 inhabitants. And you would be at some risk if you did not obtain a university licence to practise. Did you qualify at Padua?'

I told him that I had not, having no plans to practise even had my father not considered it demeaning to take a degree. Only necessity made me think of earning money by medicine now. I suppose I phrased it wrongly, for while Boyle understood my predicament, Lower took my innocent remark to indicate a disdain for his own calling.

'I'm sure sinking so low will not taint you permanently,' he said stiffly.

'On the contrary,' I said swiftly, to repair the accidental slight, 'the opportunity is more than welcome, and quite makes up for the unfortunate circumstances in which I find myself. And if I have the opportunity to associate myself with gentlemen such as yourself and Mr Boyle, I will be more than fortunate.'

He was soothed by this remark, and gradually resumed his earlier nonchalance; none the less, I had seen briefly beneath the surface, and had a glimpse of a nature which, for all its easy-going charm, was both proud and prickly. The signs vanished as quickly as they had appeared, however, and I overcongratulated myself on my success in winning him over.

To explain myself clearly, I briefly laid out my current position, and a precise question from Boyle induced me to say that I would

Copyrighted Material

soon be totally out of funds. Hence my desire to minister to the sick. He grimaced and asked why, precisely, I was in England in the first place.

I told him that filial obligation demanded that I try to re-establish my father's position in law. And for that I suspected I would need a lawyer.

'And for that you need money, for which you need an income. *Absque argento omnia rara*,' Lower said. 'Hmm. Mr Boyle? Do you have any ideas, sir?'

'For the time being, I would be happy to offer you some occupation in my elaboratory,' said this kind gentleman. 'I feel almost ashamed to offer, as it is far below what a man of your position should do. I'm sure Lower here could find you somewhere to stay at his old lodgings and perhaps, the next time he does a circuit in the countryside, he could take you along. What do you think, Lower? You always say you're overworked.'

Lower nodded, although I detected no great enthusiasm on his part. 'I should be delighted with both the help and the company. I was planning a tour in a week or so, and if Mr Cola wished to come . . .'

Boyle nodded as though all was decided. 'Excellent. Then we can tackle your London problem. I will write to a lawyer I know and see what he can recommend.'

I thanked him enthusiastically for his great kindness and generosity. It obviously pleased him, although he affected that it was a mere nothing. My gratitude was entirely genuine; from being poor, friendless and miserable, I had acquired the patronage of one of the most distinguished philosophers of Europe. It even crossed my mind that part of this was due to Sarah Blundy, whose appearance that morning, and my reaction, had swung Boyle into thinking more favourably of me than could otherwise have been the case.

Copyrighted Material

Chapter Four

Within a short time I thus established myself in good company and had a vantage point from which to await more money. Eight weeks for the mails to go, another eight to come back, if I was lucky. Add on to that a week or so for the moneys to be arranged, plus some months to sort out my business in London, and I thought I would be in England for half a year at the very least, by which time the weathers would be declining badly. Either I would have to return home overland, or risk the miserable prospect of a winter sea voyage. Alternatively, I would have to resign myself to another northern winter, and remain until the spring.

But to begin with I was more than content with my position, except where Mrs Bulstrode, my new landlady, was concerned. Everyone sincerely believed this worthy was an excellent cook, and it was with high hopes – and empty stomach, for I had not eaten properly for two days – that I presented myself at four o'clock sharp for what I believed was going to be a fine meal.

If the climate of England was difficult for a Venetian to become used to, then the food was impossible. If quantity were anything to judge by, then I would say that England is indeed the richest country on earth. Even the more modest sort habitually eat meat once a month at least, and the English boast that they have no need of sauces to cover up its stringy texture and unpleasant taste, as the French have to do. Simply roast it and eat it as God intended, they say, firmly believing that ingeniousness in cooking is sinful and that the Heavenly Host themselves tuck into roast beef and ale for their Sunday repast.

Unfortunately, there is frequently little else. Naturally, fresh fruit is often unavailable because of the climate, but the English do not even like preserved fruit, believing it causes the wind, which exhalations they consider a depletion of the body's vital heat. Nor is there much

Copyrighted Material

in the way of green vegetables, for the same reason. Rather, they eat bread or, more frequently, drink their grain as ale, of which their consumption is truly stupendous; even the most delicate of ladies cheerfully downs a quart or two of strong beer during a meal, and infants learn insobriety in the cradle. The trouble for a foreigner like myself was that the beer was strong, and it was considered unmanly (and unwomanly) not to drink it. I mention all this to explain why the meal of boiled brawn and three-quarters of a gallon of beer left me feeling not at all well.

My success in attending my patient after the meal had finished was, therefore, of considerable merit. How exactly I managed to prepare my bag and walk to the miserable cottage, I do not recall. Fortunately, the girl was not there, as I had no desire to renew my acquaintanceship with her, but as far as her mother was concerned it was far from lucky; she was badly in need of care and attention, and the girl's absence struck me as being hardly an example of the dutifulness which the old woman had mentioned.

She had slept; in fact she was still drowsy, her daughter having given her some peasant potion of her own devising which, none the less, seemed to have been very effective. But she was in considerable discomfort; pus and corrosive matter had suppurated through my binding and caked dry over the wound, giving off an evil smell which filled me with foreboding.

Removing the bandage was a long and distasteful business, but it was eventually completed and I decided that I would try exposing the wound to the air, having heard the theory that tight warm binding in such cases might very well aid corruption rather than prevent it. Such a view goes against orthodox practice, I know, and the willingness to allow the vapours to swirl round might be considered rash. All I can say is that experiments conducted since by others have tended to support the technique. I was so absorbed in my task that I failed to hear the door creaking open, or the soft pad of feet as they came up behind me, so that when Sarah Blundy spoke, I jumped up with alarm.

'How is she?'

I turned round to look. Her voice was soft, and her manner more appropriate than before.

Copyrighted Material

'She is not well at all,' I said frankly. 'Can you not attend to her more?'

'I have to work,' she said. 'Our position is already grave now my mother cannot earn. I asked someone to look in, but it seems they did not.'

I grunted, slightly ashamed of myself for not having thought of this as a reason.

'Will she recover?'

'It is too soon to say. I am drying out the wound, then I will rebind it. I fear she is developing a fever. It may pass, but I am concerned. You must check every half-hour for signs of the fever getting worse. And, strange as it may seem, you must keep her warm.'

She nodded, as though she understood, although she could not.

'You see,' I said kindly, 'in cases of a fever, one can either reinforce or oppose. Reinforcement brings the malady to a head and purges it, leaving the patient void of the cause. Opposition counters it, and seeks to restore the natural economy of the body. So, with a fever, one can either expose the patient to ice and cold water, or one can wrap her up well. I choose the latter because of her grave weakness: a more strenuous cure could well kill her before taking effect.'

She leant over and protectively tucked her mother in, then, with a surprising gentleness, stroked the old woman's hair into place.

'I had been planning to do that anyhow,' she said.

'And now you will have my approval for it.'

'I am fortunate indeed,' she said. She glanced at me, saw the suspicious look in my eye, then smiled. 'Forgive me, sir. I mean no insolence. My mother told me how well and generously you acted to her, and we are both deeply grateful for your kindness. I am truly sorry I mis-spoke. I was frightened for her, and upset about the way I was treated in the coffee house.'

I waved my hand, touched strangely by her submissive tone. 'That is quite all right,' I said. 'But who was that man?'

'I worked for him once,' she said, still not taking her eyes off her mother, 'and was always dutiful and conscientious. I believe I deserved better from him.'

She looked up and smiled at me, a smile of such gentleness that I felt my heart begin to melt. 'But it seems that we are

Copyrighted Material

spurned by our friends, and saved by strangers. So thank you again, sir.'

'You are more than welcome. As long as you do not expect miracles.'

For a moment we balanced on the brink of a greater intimacy, that strange girl and I, but the moment passed as swiftly as it presented itself. She hesitated before speaking, and it was instantly too late. Instead, we both made an effort to re-establish the correct relations and stood up.

'I will pray for one, even if I do not deserve it,' she said. 'Will you come again?'

'Tomorrow, if I can. And if she worsens, come and find me at Mr Boyle's. I will be attending him. Now, about payment,' I continued, hurrying on.

I had decided, on my walk down to the cottage that, as there was not the slightest chance of being paid in any case, it would be best to accept the fact with grace. Rather than accept the inevitable, I should turn it into virtue. In other words, I had decided to waive any fee. It made me feel quite proud of myself, especially considering my own impecunious state but, as fortune had smiled on me, I thought it fair to spread my good luck a little further.

Alas, my speech died in my throat before even the end of the first sentence. She immediately looked at me, eyes blazing with contempt.

'Oh yes, your payment. How could I think you would forget about that. We must deal with that urgently, must we not?'

'Indeed,' I said, completely astonished by the speed and completeness of her transformation, 'I think that . . .'

But I got no further. The girl led me through to the damp and squalid little space at the back of the house which was, evidently, where she – or some other animal, I could not tell – slept. On the damp floor was a pallet, hard sacking stuffed with straw. There were no windows at all, and the little space smelled very distinctly of sour water.

With a gesture of the most brusque contempt, she immediately lay down on the bed, and pulled up her thin skirt.

'Come then, physician,' she jeered. 'Take your payment.'

Copyrighted Material

I recoiled visibly, then blushed scarlet with rage as her meaning became clear even to someone as slow-witted as the beer had made me that evening. I became even more confused as I wondered whether my new friends thought this was my interest in the case. More particularly, I was outraged at the way my fine gesture had been trodden in the dirt.

'You disgust me,' I said coldly as the power of speech returned. 'How dare you behave like this? I will not remain here to be insulted. Henceforth, you may cater to your mother as you wish. But kindly do not expect me to return to this house and subject myself to your presence. Good night.'

Then I turned round and boldly marched out, even managing – just – to avoid slamming the thin door as I left.

I am more than susceptible to female charms, some might even say overly so, and in my youth I was not averse to taking my pleasures wherever they might arise. But this was not one of those cases. I had treated her mother out of kindness and to have my motives and intentions so abused was intolerable. Even if such was the form of payment I had in mind, it was certainly not the girl's place to talk to me in that fashion.

Seething with fury, I marched away from her hovel – more convinced than before that the girl was as corrupt and foul as her living accommodation. To the devil with her mother, I thought. What sort of woman could she be, to have spawned such a hellish monstrosity? A scrawny little wretch, I told myself, forgetting I had earlier thought of her as pretty. And even if she was beautiful, what of it? The devil himself can take on beauty, so we are told, to corrupt mankind.

On the other hand, a little voice in the back of my mind was whispering critical words into my ear. So, it said, you will kill the mother to have your revenge on the daughter. Well done, physician; I hope you are proud. But what was I meant to do? Apologise? The good San Rocca might be capable of such charity. But he was a saint.

Those who have some inkling that my command of the English

Copyrighted Material

language by this stage was adequate but by no means sophisticated are no doubt thinking that I am a fraud in recounting my conversations. I admit my English was not good enough to present complex ideas, but then I had no need to. Certainly, in conversations with such as the Blundy girl, I had to do my best in English; although their manner of speaking was usually sufficiently uncomplicated that I could manage perfectly well. With others, the conversation switched as occasion required from Latin and sometimes even French, the English of quality being renowned as linguists of considerable attainment, with a frequent ability in foreign tongues which many other peoples – above all, the Germans – could do well to emulate.

Lower, for example, was perfectly at ease in Latin and managed a passable French; Boyle could, in addition, manage Greek and spoke a dainty Italian as well as having a smattering of German. Now I fear Latin is passing out of use, to the detriment of our Republic; for how will men of learning manage when they sacrifice conversation with their equals and have only the ability to talk to their ignorant countrymen?

But then I felt safe in my place, surrounded, as I thought, by gentlemen who brushed aside the prejudices of lesser men. That I was a Roman Catholic occasioned no more than the occasional barbed joke from Lower, whose love of fun sometimes overbalanced into the offensive, and not even that from the pious Boyle, who was as mindful of others' faith as he was fervent in his own. Even a Mussulman or a Hindoo would have been welcomed at his table, I sometimes think, as long as he was pious and showed an interest in experiment. Such an attitude is rare in England, and this bigotry and suspicion are the most serious flaws in a nation which has many faults. Fortunately, my associations meant that I was sheltered initially from its effects, beyond an occasional insult or stone thrown at me in the street when I began to be known.

I should say that Lower was the first man I considered my friend since my infancy, and I fear I misunderstood the English in this respect. When a Venetian calls a man his friend, he does so after long thought, as to accept such a person is all but to make him a member of the family, owed much loyalty and forbearance. We die for our friends as for our family, and value them as did Dante: *noi non potemo aver*

Copyrighted Material

perfetta vita senza amici – a perfect life needs friends. Such friendships are justly celebrated among the ancients, as Homer lauds the bond between Achilles and Patroclus, or Plutarch the amity of Theseus and Perithoos. But it was rare among the Jews, for in the Old Testament I find few friends, except David and Jonathan, and even here, David's obligation is not so great that he refrains from killing Jonathan's son. Like most of my station, I had had childhood companions, but put these by me when the obligations of family descended as an adult, for they are a heavy burden. The English are very different; they have friends at all stages of their lives, and maintain a distinction between the obligations of amity and those of blood. By taking Lower to my heart as I did – for I never encountered anyone so close to me in spirit or in interest – I made the mistake of assuming he did the same with me, and acknowledged the same obligations. But it was not the case. The English can lose their friends.

Then such sad knowledge was unsuspected, and I concentrated on repaying my friends for their kindness and, at the same time, advancing my knowledge through assisting Boyle in his chemical experiments, having long and fruitful conversations at all hours and times with Lower and his associates. Although he was serious of demeanour, Boyle's elaboratory positively bubbled with good humour except when work was about to take place, for he considered experiment to be the discovery of God's work and to be performed with reverence. When an experiment was to begin, all women were excluded for fear their irrational natures would influence the result, and an air of fervent concentration descended. My task was to take notes on experiments as they happened, to assist in setting up equipment, and to keep accounts, for he spent a fortune on his science. He used – and often broke – specially made glass bottles, and the leather tubes, pumps and lenses he required all consumed huge amounts of money. Then there was the cost of chemicals, many of which had to be brought from London or even Amsterdam. There can be few prepared to spend that much to produce so little in obviously advantageous result.

I must here declare myself as someone who does not for a moment subscribe to the general view that a willingness to perform oneself is detrimental to the dignity of experimental philosophy. There is, after

Copyrighted Material

all, a clear distinction between labour carried out for financial reward, and that done for the improvement of mankind: to put it another way, Lower as a philosopher was fully my equal even if he fell away when he became the practising physician. I think ridiculous the practice of certain professors of anatomy, who find it beneath them to pick up the knife themselves, but merely comment while hired hands do the cutting. Sylvius would never have dreamt of sitting on a dais reading from an authority while others cut – when he taught, the knife was in his hand and the blood spattered his coat. Boyle also did not scruple to perform his own experiments and, on one occasion in my presence, even showed himself willing to anatomise a rat with his very own hands. Nor was he less a gentleman when he had finished. Indeed, in my opinion, his stature was all the greater, for in Boyle wealth, humility and curiosity mingled, and the world is the richer for it.

'Now,' Boyle said when Lower turned up in mid-afternoon and we took a break from our work, 'it is time for Cola here to earn the pittance I am paying him.'

This alarmed me, as I had been labouring hard for at least two hours and I wondered whether perhaps I was doing something wrong, or if Boyle had not noticed my efforts. But rather, he wanted me to sing for my supper, as the phrase goes. I was there not only to learn from him, but also to teach him, such was the marvellous humility of the man.

'Your blood, Cola,' Lower said to relieve my anxiety. 'Tell us about your blood. What have you been up to? What experimentations are your conclusions based on? What *are* your conclusions, in fact?'

'I'm very much afraid I am going to disappoint you,' I began hesitantly when I saw they were not to be diverted. 'My researches are scarcely advanced. I am mainly interested in the question of what the blood is for. We have known for thirty years that it circulates around the body; your own Harvey showed that. We know that if you drain an animal of its blood, it dies rapidly. The vital spirits in it are the means of communication between the mind and the force of mobility, permitting movement to take place . . .'

Here Lower wagged his finger. 'Ah, you have fallen too much under the influence of Mr Helmont, sir. There we will be in dispute.'

'You do not accept this?'

Copyrighted Material

'I do not. Not that it matters, at the moment. Please continue.'

I regrouped my forces and rethought my approach. 'We *believe*,' I started, 'we *believe* that it moves heat from the ferment of the heart to the brain, thus providing the warmth we need to live, then vents the excess into the lungs. But is that really the case? As far as I know, no experiments have proved this. The other question is simple: why do we breathe? We assume that it is to regulate the body heat, to draw in cool air and thus moderate the blood. Again, is that true? Although the tendency to breathe more often when we exercise indicates this, the converse is not true, for I placed a rat in a bucket of ice and stopped its nose, but it died none the less.'

Boyle nodded, and Lower looked as though he wanted to put some questions, but as he could see I was concentrating and trying to present my case well, he obligingly refrained from interrupting.

'The other thing that has struck me is the way in which the blood changes consistency. Have you noticed, for example, that it alters colour after passing through the lungs?'

'I confess I have not,' Lower replied thoughtfully. 'Although of course I am aware that it changes colour in a jar. But we know why, surely? The heavier melancholic elements in the blood sink, making the top lighter and the bottom darker.'

'Not so,' I said firmly. 'Cover the jar, and the colour does not change. And I can find no explanation of how such a separation could occur in the lungs. But when it emerges from the lungs – at least, this is the case in cats – it is very much lighter in colour than when it goes in, indicating that some darkness is withdrawn from it.'

'I must cut up a cat and see for myself. A live cat, was it?'

'It was for a while. It may well be that some other noxious elements leave the blood in the lungs, are sucked out by passage through the tissue, as through a sieve, and are then exhaled. The lighter blood is purified substance. We know, after all, that the breath often smells.'

'And did you weigh the two cups of blood to see if they had changed weight?' Boyle asked.

I flushed slightly, as the thought had never even occurred to me. 'Clearly this would be a next step,' Boyle said. 'It may be, of course,

Copyrighted Material

a waste of time, but it might be an avenue to explore. A minor detail, though. Please continue.'

Having made such an elementary omission, I felt unwilling to continue and lay out my more extreme flights of fancy. 'If one concentrates on the two hypotheses,' I said, 'there is the problem of testing to see which is correct: does the blood shed something in the lungs, or gain something?'

'Or both,' Lower added.

'Or both,' I agreed. 'I was thinking of an experiment, but had neither the time nor the equipment in Leiden to pursue my ideas.'

'And that was . . . ?'

'Well,' I began, a little nervously, 'if the purpose of breathing is to expel heat and the noxious by-products of fermentation, then the air itself is unimportant. So if we placed an animal in a vacuum . . .'

'Oh, I see,' Boyle said, with a glance at Lower. 'You would like to use my vacuum pump.'

In fact, the idea had not occurred to me before I spoke. Curiously, Boyle's pump was of such fame I had scarcely given it a thought since I had arrived in Oxford, as I had never dreamt of the possibility of using it myself. The machine was of such sophistication, grandeur and expense that it was known to people of curiosity throughout Europe. Now, of course, such devices are well enough known; then there were perhaps only two in the whole of Christendom, and Boyle's was the better, so ingenious in design that no one had managed to reproduce it – or the results he attained. Naturally, its use was rationed very carefully. Few were even allowed to see it in operation, let alone employ it, and it was forward of me even to bring the subject up. I hardly dared risk a refusal; I had set myself the task of ingratiating myself into his confidence, and a rebuff now would have been hurtful.

But, all was well. Boyle thought the matter over a while and then nodded. 'And how might you proceed?'

'A mouse or a rat would do,' I said. 'Even a bird. Put it in the bell and extract the air. If the purpose of respiration is to vent fumes, then a vacuum will provide more space for the exhalations, and the animal will live more easily. If respiration requires air to be sucked into the blood, then the vacuum might make the animal ill.'

Boyle thought it over and nodded. 'Yes,' he said eventually. 'A good

Copyrighted Material

idea. We can do it now, if you like. Why not, indeed? Come along. The machine is prepared, so we can start immediately.'

He led the way into the next room, in which many of his finest experiments had taken place. The pump, one of the most artistic devices I had seen, stood on the table. For those who do not know it, then I suggest they consult the fine engravings in his *Opera Completa*; here I will merely say that it was an elaborate device of brass and leather with a handle connected to a large glass bell and a set of valves through which, propelled by a pair of bellows, the air could be made to pass in one direction, but not the other. By the use of this, Boyle had already demonstrated some marvels, including the disproval of Aristotle's *dictum* that nature abhors a vacuum. As he said in a rare moment of jest, nature may not like it, but if pushed will be made to put up with it. A vacuum – an area of space voided entirely of content – can indeed be created and possesses many strange qualities. As I examined the machine carefully, he told me how a ringing bell placed in a glass chamber will stop making sound as the vacuum is created around it; the more perfect the vacuum, the less the sound. He said he had even constructed an explanation for the occurrence, but declined to inform me of it. I would see for myself with the animal, even if the rest of the experiment did not work.

The bird was a dove, a handsome bird which cooed gently as Boyle took it from its cage and placed it underneath the glass dome. When all was ready, he gave a signal, and the assistant began working the bellows with much grunting and a whooshing sound as air was propelled through the mechanism.

'How long does this take?' I enquired eagerly.

'A few minutes,' Lower replied. 'I do believe its song is getting fainter, do you hear?'

I regarded the beast with interest – it was showing signs of distress. 'You are right. But surely it is because the bird itself seems unconcerned with making a noise?'

Hardly had I spoken when the dove, which a few moments ago had been hopping around the dome with curiosity, fluttering against the invisible glass walls which it could feel but was incapable of understanding, fell over, its beak gaping open, its beady eyes popping and its legs flailing around pathetically.

Copyrighted Material

'Good heavens,' I said.

Lower ignored me. 'Why don't we let the air back in, and see what happens then?'

The valves were turned, and with an audible hiss, the vacuum was filled. The bird still lay there, twitching away, although it was clear that it was very much relieved. Within a few moments, it picked itself up, ruffled its feathers, and resumed its attempts to fly away to freedom.

'Well,' I said, 'so much for one hypothesis.'

Boyle nodded, and gave the assistant a nod to try it again. Here I must note the extraordinary goodness of this fine man, who refused to use the same animal in more than one type of experiment, because of the torture to the creature. Once it had served its turn, and given itself to the pursuit of humane knowledge, he either let it go or, if necessary, killed it.

Until then, I had never thought such an attitude attachable to any experimentalist other than myself, and I rejoiced to find at last someone whose sentiments were similar to my own. Experimentation must take place, this is certain; but sometimes, when I behold the faces of my colleagues as they cut, I think I see too much pleasure on their countenances, and suspect that the agony is prolonged longer than is necessary for mere knowledge. Once in Padua, a vivisection of a dog was interrupted when a female servant, grieved to hear the beast's piteous cries as it was cut open, strangled it in front of a full audience of students, causing much dismay and protest at the ruining of the spectacle. Of the assembled multitude, I believe that only myself had sympathy for the woman, and was grateful to her; but then I was ashamed of the effeminacy of my concerns which, I think, came from my delight as a child in being read to from the life of St Francis, who loved and reverenced all things in God's creation.

But Boyle came to the same conclusions, although (typically of the man) he did so in a far more rigorous fashion than myself and was, of course, uninfluenced by memories of the Assisi countryside. For, just as he believed that a gentleman should show Christian condescension to the lower orders, according to their merits, so men, the gentlemen of God's creation, owed similar courtesy to the animals over whom they had dominion. While not scrupling to use men or animals as was

Copyrighted Material

his right, he believed firmly that they should not be abused either. In that, good Catholic and fervent Protestant were in accord for once, and I liked Boyle the more for his care.

That afternoon, we used only a single bird. By means of careful study we ascertained that it was scarcely affected when only half of the air was removed, that it began to show signs of distress when two-thirds had gone, and was rendered insensible when three-quarters had vanished. Conclusion: the presence of air is necessary for life to continue, although, as Lower said, that did not explain what it did. Personally, I believe that as fire needs air to burn, so life, which can be likened to fire, needs it also, although I admit that argument by analogy is of limited use.

It was an appealing little animal, the dove we used to prise these secrets from nature's grip, and I had my habitual pang of sorrow when we reached the final, necessary round of the experiment. Although we knew what the result would be, the demands of philosophy are implacable and all must be demonstrated beyond contradiction. So it was my voice which reassured the creature for the last time, and my hand which placed it back in the bell, then gave the signal for the assistant to begin pumping once more. I offered a small prayer to gentle St Francis when it finally collapsed and died, its song finally extinguished. It is God's will that sometimes the innocent must suffer and die for a greater purpose.

Copyrighted Material

Chapter Five

This business concluded, Lower suggested I might like to dine with some friends later that evening whom he felt I might profit from meeting. It was kind of him and it seemed that the closeness to Boyle which an afternoon's experiment entailed had placed him in a good humour. I suspected, however, that there was another side of his character, a darkness which warred with his natural good nature. For a flickering of a moment, while I laid out my thoughts to Boyle, I had felt a slight unease in his demeanour, although this had never come to the surface. I had also noticed that he had never given his own theories or elaborated his own thoughts; these he kept close to himself.

I did not mind; Boyle was Lower's most important connection among the few gentlemen of standing who could help establish himself in his career and he was naturally concerned lest that patronage be diverted. But I contented myself with the assurance that I presented him with no challenge, and concluded that I could hardly attract his enmity. Perhaps I should have been more sensitive to his concerns, for it was a matter of character not of circumstance which made him uncomfortable.

My position had made me easy with all ranks of life; I admired and was beholden to Mr Boyle, but in all other respects I considered him my equal. Lower was unable to feel the same; although all are citizens of the Republic of Learning, he was often uneasy in such company, for he believed himself at a disadvantage due to a birth which, although respectable, gave him neither fortune nor people. Moreover, he lacked the talents of the courtier and in later years he never rose to any position of distinction in the Royal Society while men of lesser accomplishment took on its great offices. This was galling for a man of his ambition and pride but, for the most

Copyrighted Material

part, this inner conflict was hidden, and I am aware that he did as much as his nature allowed to assist me while I was in Oxford. He was a man who liked easily, but then was seized by fear lest his affections be abused and exploited by others of a less trusting disposition than himself. The fact that earning position in England is so formidably hard merely heightened this aspect of his nature. I can say this now, as the passage of years has lessened my hurt and increased my understanding. At that time my comprehension was smaller.

It was as a result of his friendliness and enthusiasm, however, that I was led down the High Street that afternoon in the direction of the castle.

'I didn't want to mention it in Boyle's presence,' he said confidingly as we marched briskly along in the cold afternoon air, 'but I have high hopes of getting hold of a corpse soon. Boyle disapproves.'

I was surprised by this remark. Even though some of the older physicians didn't hold with the business at all, and it still caused considerable trouble among churchmen, it was accepted as an essential part of medical studies in Italy. Was it possible that a man like Boyle could disagree?

'Oh, no. He has nothing against anatomising, but he feels I tend to become undignified about the matter. Which may be true, but there is no other way of getting hold of them without getting permission first.'

'What do you mean? Getting permission? Where does this man find the body in the first place?'

'He is the body.'

'How can you ask permission of a corpse?'

'Oh, he's not dead,' Lower said airily. 'Not yet, anyway.'

'Is he ill?'

'Heavens, no. Prime of life. But they're to hang him soon. After he's found guilty. He attacked a gentleman and injured him badly. A simple case it is, too; he was found with the knife in his hand. Will you come to see the hanging? I must confess I shall; it's not often a student is hanged, alas. Most of them join the Church and get livings . . . I'm sure there's a witticism in there somewhere, if I phrased it rightly.'

Copyrighted Material

I was beginning to see Boyle's point of view, but Lower, quite impervious to disapproval when fixed on his work, explained how very difficult it was to get hold of a fresh corpse these days. That had been the one good effect, he said nostalgically, of the civil war. Especially when the king's army had been quartered in Oxford, there were corpses, two a penny. Never had anatomists had such a plentiful supply. I forbore to point out that he was much too young to know.

'The trouble is, you see, that most people who die are sick in some way.'

'Not if they have the right doctor,' I said, desiring to show myself as witty as he.

'Quite. But it's very inconvenient. The only time we can see what a properly healthy person looks like is if they are killed in some relatively clean fashion. And the best supply of those comes from the gallows. But that is another one of the university's monopolies.'

'Pardon?' I said in some surprise.

'Law of the land,' he went on. 'The university has a right to the bodies of everyone hanged within twenty miles. The courts are so very lax on crime these days, as well. Many an interesting specimen gets off with a flogging, and there's only about half a dozen hangings a year. And I'm afraid they don't always make the best use of the corpses they do have. Our Regius professor is scarcely qualified to be a carpenter. Last time . . . well, let's not go into that,' he said with a shudder.

We had arrived at the castle, a great gloomy edifice which scarcely seemed capable of defending the town from assault or of providing a refuge for the townspeople. In fact, it had not been used for such a purpose for as long as anyone could remember, and was now the county prison, in which those due to appear at the assizes were held pending their trial – and pending their punishment afterwards. It was a dirty, shabby place, and I looked around with distaste as Lower knocked on the door of a little cottage down by the stream, in the shadow of the tower.

Getting in to see his body was surprisingly easy; all he had to do was tip the guardian a penny, and this old, hobbling man – a Royalist soldier who had been given the position for his services – led the way, his keys jangling by his side.

Copyrighted Material

If it was gloomy outside, it was even darker inside, although far from grim for the more fortunate of the inmates. The poorer ones, naturally, had the worst of the cells and were forced to eat food which was barely adequate for keeping body and soul together. But, Lower pointed out, as several were to have body and soul forcibly separated in due course anyway, there was little point in spoiling them.

However, the better sort of prisoner could rent a more salubrious cell, send out to a tavern for food and in addition have laundry done when required. He could also receive visitors if, as was the case with Lower, they were prepared to tip heavily for the privilege.

'There you are, then, sirs,' said the warder as he swung open a heavy door leading into what I gathered was a cell for a middle-ranking sort of prisoner.

The man whom Lower hoped to cut into small bits was sitting on a little bed. He looked up in a rather sulky fashion as we entered, then peered curiously, a glimmer of half recognition passing across his face as my friend passed into the thin stream of light that came through the open, barred window.

'Dr Lower, isn't it?' he said in a melodious voice.

Lower told me later that he was a lad from a good, but impoverished family; his fall from grace had been something of a shock and his position was not sufficiently elevated to spare him from the gallows. And now the time appointed was drawing near. The English rush from trial to sentence with considerable speed, so that a man condemned on Monday can often be hanged the following morning unless he is lucky; Jack Prestcott could count himself fortunate that he had been arrested a few weeks before the assizes arrived to hear his case; it gave him time to prepare his soul, for Lower told me there was not the slightest chance of an acquittal or a pardon.

'Mr Prestcott,' Lower said cheerfully. 'I hope I find you well?'

Prestcott nodded and said he was as well as could be expected.

'I won't beat about the bush,' Lower said. 'I have come to ask something of you.'

Prestcott looked surprised that he should be asked a service in his current condition, but nodded to indicate that Lower should ask away. He put down his book and paid attention.

'You are a young man of considerable learning, and I'm told your

Copyrighted Material

tutor spoke very highly of you,' Lower continued. 'And you have committed a most heinous crime.'

'If you have found a way of saving me from the noose, then I agree with you,' Prestcott said calmly. 'But I fear you have something else in mind. But please continue, Doctor. I am interrupting your speech.'

'I trust you have meditated on your sinful conduct, and have seen the justice of the fate which awaits you in due course,' Lower continued in what struck me as being a remarkably pompous fashion. I suppose the effort to hit the right tone made him sound a little discordant.

'Indeed I have,' the youth replied with gravity. 'Every day I pray to the Almighty for forgiveness, mindful that I scarcely deserve such a boon.'

'Splendid,' continued Lower, 'so if I were to tell you of a way in which you could contribute inestimably to the betterment of all mankind, and do something to cancel out the horrible acts with which your name will be for ever associated, you might be interested? Hmm?'

The young man nodded cautiously, and asked what this contribution might be.

Lower explained about the law on the corpses of criminals.

'Now, you see,' he went on, scarcely noticing that Prestcott had turned a little pale, 'the Regius professor and his assistant are the most appalling butchers. They will hack and saw and chop, and reduce you to a mangled ruin, and no one will be any the wiser. All that will happen is that you will furnish a rarity show for any spotty undergraduate who cares to come along and watch. Not that many do. Now I – and my friend here, Signor da Cola, of Venice – are dedicated to research of the most delicate kind. By the time we are finished, we will know immeasurably more about the functions of the human body. And there will be no waste, I promise you,' he went on, waving his finger in the air as he got into his stride.

'You see, the trouble with the professor is that, once he stops for lunch, he tends to lose interest. He drinks a good deal, you know,' he confided. 'What's left over gets thrown away or gnawed by rats in the basement. Whereas I will pickle you . . .'

'I beg your pardon?' Prestcott said weakly.

Copyrighted Material

'Pickle you,' Lower replied enthusiastically. 'It is the very latest technique. If we joint you and pop you into a vat of spirits, you will keep for very much longer. So much better than brandy. Then when we have the leisure to dissect a bit, we just fish you out and get to work. Splendid, eh? Nothing will be wasted, I assure you. All that is required is that you give me a letter specifying as your last request that I be allowed to dissect you once you have met your punishment.'

Convinced that this was a request no reasonable man might refuse, Lower leant back against the wall and beamed with anticipation.

'No,' Prestcott said.

'I beg your pardon?'

'I said no. Certainly not.'

'But I told you; you will be dissected anyway. Wouldn't you at least want it to be done properly?'

'I don't want it done at all, thank you. What's more, I'm convinced it will not be.'

'A pardon, you think?' Lower said with interest. 'Oh, I think not. No, I fear you will swing, sir. After all, you nearly killed a man of some importance. Tell me, why did you attack him?'

'I must hasten to remind you I have not yet been found guilty of any crime, let alone condemned, and I am convinced I will shortly regain my freedom. Should I be wrong then I might entertain your proposal, but even then I doubt whether I will be able to oblige you. My mother would have the gravest objections.'

This, I suppose, was the time for Lower to return to his theme, but his enthusiasm seemed to have waned. Perhaps he thought the young man's mother would regard being jointed and pickled as bringing still further shame on his name. He nodded regretfully and stood up, thanking the youth for having listened to his request.

Prestcott told him to think nothing of it and, when asked if he needed anything to improve his condition, asked if Lower could deliver a message to a Dr Grove, one of his former tutors, requesting him to be good enough to visit. He had need of spiritual comfort, he said. Another gallon of wine would be well received also. Lower promised and I offered to deliver the wine, as I felt sorry for the fellow; and this I did as my friend went off to an appointment with a new patient.

'Well, it was worth trying,' he said in a disappointed tone when

Copyrighted Material

we met later on, and I noticed that the rebuff had quite dissolved his cheerful mood of earlier in the day.

'What did he mean about his family having shame enough?'

Lower was lost in contemplation, however, and ignored my remark while he dwelt on his failure. 'What was that?' he said abruptly when his attention returned. I repeated myself.

'Oh. No more than the truth. His father was a traitor, who fled abroad before he could be held. He would have been executed as well, had the chance arisen.'

'Quite a family.'

'Indeed. It seems that the son takes after the father in more than looks, alas. It is a damnable shame, Cola. I need a brain. Several brains, and I am hindered and obstructed at every turn.' Then, after a long silence, he asked what I thought the chances were of Sarah Blundy's mother pulling through.

Rather foolishly, I imagined that he wanted a detailed account of the case and the treatment I had provided, so I told him about the nature of the wound, the way I had set the bone and cleaned the flesh, and of the salve I had used.

'Waste of time,' he said loftily. 'Tincture of Mercury is what you need.'

'You think? Perhaps. But I decided that in this case, considering the aspect of Venus, she stood a much better chance with a more orthodox remedy . . .'

And then came the first serious indication of the darkness in my friend I have mentioned, for I could not even finish my reply before he exploded with rage, in full public, swinging round to face me, his face darkening.

'Oh, don't be so stupid,' he shouted. 'The aspect of Venus! What magical nonsense is that? Dear God, are we still Egyptians that we should pay attention to such rubbish?'

'But Galen . . .'

'I don't give a hoot for Galen. Or Paracelsus. Or any foreign magus with his slobberings and mumblings. These people are the merest frauds. As are you, sir, if you drivel on in such a way. You should not be let loose among the sick.'

'But, Lower . . .'

Copyrighted Material

'More orthodox remedy,' he said, mimicking my accent cruelly. 'I suppose some gibbering priest told you that, and you do as you're told? Eh? Physick is too important to be left to the dabblings of a rich man's son like you, who could no more cure a cold than you could a broken leg. Stick to counting your money and your acres, and leave serious matters to people who care for them.'

I was so shocked by this outburst, so unforeseen and so very violent, that I said nothing at all in reply, except that I was doing my best and that no one better qualified had offered their services.

'Oh, get out of my sight,' he said with the most terrible contempt. 'I will have none of you. I have no time for quacks and charlatans.'

And he abruptly turned on his heel and marched away, leaving me standing in the street in shock, my face burning red with anger and embarrassment, conscious above all that I had provided cheap entertainment for the mob of shopkeepers all around me.

Copyrighted Material

Chapter Six

I returned to my room in deep distress to consider what I should do next, and try to understand how I had caused such offence, for I am one of those who naturally assumes the fault lies in himself first of all, and my lack of understanding of English ways had greatly heightened my uncertainty. Even so, I was convinced that Lower's shocking outburst was excessive, but the temper of the country then cast all opinions in extremes.

So I sat by the little fireplace in my cold room, with the feelings of desperation and loneliness, so recently banished, coming back to plague me once again. Was my acquaintanceship at an end so soon? Certainly in Italy no relation could survive such behaviour, and under ordinary circumstances we would now be preparing to duel. I intended to do no such thing, of course, but did briefly consider whether it would be better to leave Oxford, for my association with Boyle might well become intolerable, and then I would be friendless once again. But where could I go? There seemed little point in returning to London, and less in staying where I was. I was fixed in my irresolution when feet on the stairs, and a heavy pounding on the door roused me from my dreary thoughts.

It was Lower. With a grave look on his face, he marched determinedly in, and placed two bottles on the table. I regarded him coldly and cautiously, expecting another round of abuse, and determined that he should speak first.

Instead, he ostentatiously sank to his knees, and clasped his hands together.

'Sir,' he said with a gravity which had more than a touch of the theatrical in it, 'how can I ask you to forgive me? I have behaved with the manners of a tradesman, or worse. I have been inhospitable, unkind, unjust and grossly ill-mannered. I offer you my humblest

Copyrighted Material

apologies on my knees, as you see, and beg for a forgiveness which I do not deserve.'

I was as astonished by his behaviour now as I was before, and could find no suitable reply for this contrition, which was every bit as excessive as his violence an hour or so previously.

'You cannot forgive,' he continued with an ostentatious sigh as I remained silent. 'I cannot blame you. Then there is no choice. I must kill myself. Please tell my family that my gravestone should read, "Richard Lower, physician, and wretch".'

Here I burst out laughing, so absurd was his behaviour and, seeing that he had cracked my resolve, he grinned back.

'Truly, I am most gigantically sorry,' he said in a more moderate tone. 'I don't know why, but sometimes I become so angry that I cannot stop myself. And my frustrations over these corpses is so very great. If you knew the torments I go through . . . Do you accept my apology? Will you drink from the same bottle as me? I will not sleep or shave until you accept, and you don't want to be responsible for me having a beard down to my ankles, do you?'

I shook my head. 'Lower, I do not understand you,' I said frankly. 'Or any of your countrymen. So I will assume this is part of your nation's manner, and that it is my fault for having so little understanding. I will drink with you.'

'Thank heavens for that,' he said. 'I thought I had foolishly thrown away a valued friend through my own stupidity. You are goodness indeed to give me a second chance.'

'But please explain. Why did I make you so angry?'

He waved his hand. 'You didn't. It was my misunderstanding, and I was upset over losing Prestcott. Not long ago I had a violent row with someone over astrological prediction. The College of Physicians is wedded to it and this man threatened to keep me out of practice in London because I disdain it in public and advocate the new mineral physick. It is a battle between new knowledge and the dead hand of old. I know you did not mean it like that, but I'm afraid the fight I had is too fresh in my mind. The sound of you, of all people, taking their part was too much to bear, so highly do I value you. Unforgivable, as I say.'

He had a way of turning insult into compliment which I was ill

Copyrighted Material

equipped to handle; we Venetians have a reputation for the elaborate nature of both our courtesies and our insults, but they are so formal there is no chance of misunderstanding even the most opaque remark. Lower, and the English in general, had the unpredictability of the uncivilised; their genius is as uncontrolled as their manners, and can make them great or mad. I doubt that foreigners will ever know them, or truly trust them. But an apology was an apology, and I had rarely received such a handsome one; I shook his hand; we bowed solemnly, and toasted each other to bring the argument to a formal conclusion.

'Why do you want Prestcott so much and so urgently?'

'My brains, Cola, my brains,' he said with a loud groan. 'I have anatomised and drawn as many as I can lay my hands on, and I will soon be finished. I have devoted years to the task, and it will make my name when it is done. The spinal cord, in particular. Fascinating. But I cannot finish without some more, and unless I can finish I cannot publish my work. And there is a Frenchman who I know is doing much the same work. I will not be beaten by some snivelling papist . . .'

He paused, and realised he had mis-spoken again. 'Apologies, sir. But so much depends on this, and it is heartbreaking to be denied by such stupidities.'

He opened the second bottle, took a long draught from the open neck and handed it to me. 'So there you are. The reasons for my incivility. They combine, I must admit, with an overly wayward temperament. I am choleric by nature.'

'So much for the man who rejects traditional medicine.'

He grinned. 'True enough. I speak metaphorically.'

'Did you mean it about the stars? You think it is nonsense?'

He shrugged his shoulders. 'Oh, I don't know. I really don't. Are our bodies a microcosm of all creation? Can we discern movements of the one from studying the other? Probably. It makes perfect sense, I suppose, but no one has ever given me a good and unassailable method to do it by. All this star-gazing the astronomers do seems very thoughtless stuff, and they will wrap it up so in nostrums and gabblings. And they will keep on finding more of them with these telescopes of theirs. All very interesting, but they become so

Copyrighted Material

enthusiastic they've all but forgotten the reason why they're looking. But do not start me on that. I will lose my temper for the second time in the day. So, can we start again?'

'In what way?'

'Tell me about your patient, that most strange widow Anne Blundy. I will give the matter my full attention, and any suggestions I make will be without the slightest taint of criticism.'

I was still chary of taking such a risk and so hesitated until Lower sighed and made an elaborate preparation to go back down on his knees.

'All right,' I said, holding up my hands and trying to stop myself laughing once more. 'I surrender.'

'Thank heavens,' he said. 'For I'm sure I will be rheumatic when I'm old. Now, if I'm right, I believe you said the wound was not knitting?'

'No. And it will turn putrid very rapidly.'

'You've tried exposing it to the air, rather than keeping it bandaged?'

'Yes. It is making no difference.'

'Fever?'

'Surprisingly not. Not yet, but it must come.'

'Eating?'

'Nothing, unless her daughter has managed to feed her some gruel.'

'Piss?'

'Thin, with a lemony aroma and astringent taste.'

'Hmm. Not good. You're quite right. Not good.'

'She will die. I want to save her. Or at least I did. I find the daughter intolerable.'

Lower ignored the last remark. 'Any sign of gangrene?'

I told him no, but that there was again every likelihood it might appear.

'D'ye think she would be interested in advancing . . . ?'

'No,' I said firmly.

'What about the daughter? If I offered her a pound for the remains?'

'You have met the girl, I believe.'

Copyrighted Material

Lower nodded, and sighed heavily. 'I tell you, Cola, if I should die tomorrow, you have my full permission to anatomise me. Why it causes such upset I do not know. After all, they're buried eventually, aren't they? What does it matter how many pieces they're in, as long as they die with the blessings of religion? Do they think the Good Lord is incapable of reassembling them in time for the Second Coming?'

I replied that it was the same in Venice; for whatever reason, people did not like the idea of being cut up, whether they were dead or alive.

'What do you intend to do with the woman?' he asked. 'Wait till she dies?'

It was then that I had an idea and instantly decided to share it. Such was my trusting nature that it never occurred to me not to do so.

'Hand me that bottle again,' I said, 'and I'll tell you what I'd like to do, if I were only able.'

He did so at once, and I briefly considered the momentous step I was about to take. I was hardly in an equable frame of mind; my distress at the bruising I had received, and the relief at his apology, were so great that my judgement was unbalanced. I do believe I would never have drawn him into my confidence had his loyalty and friendship been unquestioned; now it had been placed in doubt, the wish to please him and demonstrate my seriousness swept all before it.

'Please forgive the clumsy way I express this,' I said, when he was leaning back on my truckle bed as comfortably as was possible. 'The idea came to me only when we were watching that dove in the vacuum pump. It is about the blood, you see. What if, by accident, there is not enough blood to carry the nutrient? Could a loss of blood mean that there is insufficient to vent the excess heat from the heart? Might that not be a cause of fever? Also, I have wondered for some years whether the blood gets old with the rest of the body. Like a canal with stagnant water in it, where everything starts to die, because the passageway becomes clogged.'

'Certainly, if you lose blood, you die.'

'But why? Not from starvation, nor from excess heat, either. No, sir. It is the draining or occlusion of the life spirit present in the blood that causes death. The blood itself, I am convinced, is merely the carrier for

Copyrighted Material

this spirit. And it is the decay of that spirit which causes old age. That, at least, is my theory, and it is one where the traditional knowledge you disdain, and the experimental knowledge you applaud, are in perfect agreement.'

'At which point, we connect your theoretical preliminary with the practicalities of your case, is that not so? Tell me how you would proceed.'

'If you think about it simply, it is very straightforward. If we are hungry, we eat. If we are cold, we approach heat. If our humours are unbalanced, we add or create some more to recreate equilibrium.'

'If you believe that nonsense.'

'If you do,' I said. 'If you do not, and you believe in the elemental theories, then you rebalance the body by strengthening the weakest of the three elements. That is the essence of all medicine, old and new: to restore equilibrium. Now, in this case, taking away more blood by leeching or scarifying the patient would only make matters worse. If her life spirit is diminished, reducing it still further cannot help her. This is Sylvius's theory, and I believe he is correct. Logically, instead of taking blood away, the only answer should be . . .'

'To add some more,' Lower said quickly, leaning forward in his seat with sudden eagerness as he finally grasped what I was talking about.

I nodded enthusiastically. 'That's it,' I said, 'that's it exactly. And not just more, but young blood, fresh, new and unclogged, with the vitality of youth in its essence. Maybe that would allow an old person to repair a wound. Who knows, Lower,' I said excitedly, 'it might be the elixir of life itself. It is thought, after all, that merely getting a child to share a bed can benefit the health of an elderly person. Just think what their blood might do.'

Lower leant back in his chair and took a deep draught of ale as he thought about what I had said. His lips moved as he held a silent conversation with himself, going over in his mind all the possibilities. 'You have fallen under the influence of Monsieur Descartes, have you not?' he asked eventually.

'Why do you say that?'

'You have constructed a theory, and that leads you to recommend a practice. You have no evidence that it would work. And, if I may say

Copyrighted Material

so, your theory is confused. You argue by analogy – using a humoral metaphor you do not actually believe in – to conclude that supplying an absence is a solution. That is, adding vital spirit, the existence of which is conjectural.'

'Though not disputed even by yourself.'

'No. That is true.'

'Do you dispute my theory, though?'

'No.'

'And is there any way of finding out whether I am correct except by testing it against result? That is surely the basis of experimental philosophy?'

'That is Monsieur Descartes's basis,' he said, 'if I understand him correctly. To frame a hypothesis, then amass evidence to see if it is correct. The alternative, proposed by my Lord Bacon, is to amass evidence, and then to frame an explanation which takes into account all that is known.'

In retrospect, looking back over the conversation which I noted diligently in the book which was with me on my travels and which I now re-read for the first time in many years, I see many things which were obscured from my understanding then. The English detestation of foreigners leads very swiftly to a wish to ignore any advance which stems from what they consider faulty methods, and allows this proudest of people to claim all discoveries as their own. A discovery based on faulty premises is no discovery: all foreigners influenced by Descartes employ faulty premises, and therefore . . . *Hypotheses non fingo*. No hypotheses here: is that not the trumpet blast of Mr Newton as he assails Leibniz as a thief for having the same ideas as himself? But at that time I merely thought my friend was using argument as a means of furthering our knowledge.

'I believe your summary of Monsieur Descartes does him scant justice,' I said, 'but no matter. Tell me how you would proceed.'

'I would begin by transfusing blood between animals – young and old of the same type, then between different types. I would transfuse water into an animal's veins, to see whether the same response was elicited. Then, I would compare all the results to see what exactly the effects of transfusing blood are. Finally, when I could proceed with certainty, I would make the attempt on Mrs Blundy.'

Copyrighted Material

'Who by then would have been dead for a year or more.'

Lower grinned. 'Your unerring eye has spotted the weakness of the method.'

'Are you suggesting I should not do this?'

'No. It would be fascinating. I merely doubt whether it is well founded. And I am certain that it would cause scandal. Which makes it a dangerous business to discuss publicly.'

'Let me put it another way. Will you help me?'

'Naturally I should be delighted. I was merely discussing the issues that are raised. How would you proceed?'

'I don't know,' I said. 'I thought that maybe a bull might serve. As strong as an ox, you know. But good reasons rule that out. The blood has a tendency to congeal. So it would be imperative to transport it immediately from one creature into the other without delay. And we could hardly bring an ox in. Besides, the blood transports the animal spirit, and I would be loath to infuse the bestiality of an ox into a person. That would be an offence against God, Who has set us higher than the animals.'

'Your own, then?'

'No, because I would need to attend to the experiment.'

'There is no problem. We can easily find someone. The best person', he continued, 'would be the daughter. She would be willing, for her mother's sake. And I'm sure we could impress on her the need for silence.'

I had forgotten about the daughter. Lower saw my face fall, and asked me what was the matter. 'She was so insufferably offensive last time I visited the house I vowed never to set foot there again.'

'Pride, sir, pride.'

'Perhaps. But you must understand that I cannot give way. She would have to come to me on her knees before I would reconsider.'

'Leave that for a moment. Assuming you could do this experiment – just assuming – how much blood would you need?'

I shook my head. 'Fifteen ounces, maybe? Perhaps twenty. A person can lose that much without too many ill effects. Maybe more at a later stage. But I do not know how to effect the transportation. It struck me that the blood would have to leave the one body and enter the other in the same place – vein to vein, artery to artery. I would recommend

Copyrighted Material

slitting the jugular, except that it's fearfully difficult to stop it up again. I don't want to save the mother and have the daughter bleed to death. So maybe one of the major vessels in the arm. A band to make it swell up. That's the easy part. It is the transference which concerns me.'

Lower got up and wandered around the room, rummaging around in his pockets.

'Have you heard of injections?' he asked eventually.

I shook my head.

'Ah,' he said. 'A splendid idea, which we have been working on.'

'We?'

'Myself, Dr Willis and my friend Wren. Similar in some ways to your idea. What we do, you see, is take a sharp instrument and push it into a vein, then squeeze liquids straight into the blood, avoiding the stomach entirely.'

I frowned. 'Extraordinary. What happens?'

He paused. 'We have had mixed results,' he confessed. 'The first time it worked marvellously. We injected an eighth-cup of red wine straight into a dog. Not enough to make it even tipsy, usually, but by this method it turned rolling drunk.' He grinned at the thought. 'We had a terrible time controlling it. It jumped off the table and ran around, then fell over after bumping into a cupboard of plates. We could barely control ourselves. Even Boyle cracked a smile. The important thing is that it seems a little liquor injected has much more of an effect than when taken through the stomach. So we took a mangy old beast next time and injected sal ammoniack.'

'And?'

'It died, and in some considerable pain. When we opened it up, the corrosion to its heart was considerable. We tried injecting milk the next time to see if we could bypass the need to eat. But it curdled in the veins, unfortunately.'

'Died again?'

He nodded. 'We must have overdone the amount. We'll cut it back next time.'

'I would be fascinated if you would allow me to attend.'

'A pleasure. My point is that we could use the same idea for transferring your blood. You don't want the blood exposed to the air, because it might congeal. So you take a pigeon quill, which can

Copyrighted Material

be made very thin and sharp. Put a hole in the end and insert it into Sarah's vein. Join it to a long silver tube, which has a narrow diameter, with another quill in the mother's vein. Wait for the blood to flow, then stop the flow in the mother's vein above the slit. Join the two together, and count. I'm afraid we'd have to guess about how much comes out. If we let the blood flow into a bowl for a few seconds, we'll have some idea of how fast it is going.'

I nodded enthusiastically. 'Wonderful,' I said. 'I had thought of cupping. This is much neater.'

He grinned, and held out his hand. 'By God, Mr Cola, I'm glad you're here. You're a man after my own heart, truly you are. In the meantime, which of us is going to see Grove for poor Prestcott?'

Copyrighted Material