RABELAIS THE PHYSICIAN.

BY SIR HENRY MORRIS, BART., F.R.C.S., M.A. LOND.

THE interesting announcement under this heading which appeared in last week's issue of THE LANCET will be read with pleasure by everyone who finds enjoyment in good literature. The indelible renown of the author of "Pantagruel" and his giant father "Gargantua" rests on a much wider foundation than the fact that he was at once both a divine and a great physician—an association of two professions in the same person quite common at the epoch of Rabelais and for centuries before. Having received his first schooling in a Benedictine foundation, Rabelais became a novice, and took the vows of a novitiate in a Franciscan convent, which in turn he left to enter a Benedictine abbey and thus became a Benedictine monk instead of a Franciscan friar. He was guilty of apostasy from the rules of the Church by abandoning without the permission of his superior the garb of a monk for that of a secular priest, and travelling about the country from one university to another. He entered as a law student first at Bourges, next at Orleans, and afterwards as a medical student in Paris. He took his medical degrees in the University of Montpellier in 1530 and 1537. He gave anatomical demonstrations on the human body in the medical theatre at Montpellier (1537) and in the following year at Lyons. He invented surgical instruments for the reduction of fractures of the femur and for operating in cases of strangulated hernia. He was mentioned by Dolet as the "honour and sure glory of the healing art," and Salmon Macrin described him in a Latin ode as the most eminent physician, of whose skill "Paris, Narbonne, the banks of the Aude, and Lyons" were witnesses. He besought the Holy Father to grant him absolution from his apostasy, to allow him to hold any benefice that might canonically be conferred on him, and to practise the art of medicine "*in the way of Charity, without expectation of lucre or gain, and without the use of the cautery or knife.*" And the Pope granted all that his "beloved son" had requested. Then we hear of him at one time as a chaplain to a Bishop, at another time as travelling physician to a French Cardinal, at another as holding medical appointments at hospitals, and finally as a pluralist in Church preferment holding two livings, one at Meudon, near Paris, and that of Saint Christophe du Jambet, in the diocese of Le Mans. But above and beyond all this, Rabelais is principally famous because of his influence on the Renaissance, not in France only, but throughout the civilised world. Up to nearly the end, certainly till after the middle, of the fifteenth century, Greek was not understood in France. It was not until the arrival of a learned Greek, Janus Lascaris, in 1495 that the Greek language began to be studied in Paris. Soon after this a small coterie of Greek scholars was formed there, amongst the members of which were two physicians—viz., Guillaume Cop and Jean Ruel. Rabelais and a fellow monk, Pierre Amy, began to learn Greek about 1520, but under difficulties. If owing to prejudice and the scarcity of Greek texts the study was difficult in Paris, still more so was it in a Franciscan convent in a provincial town, where "*vows of ignorance*" as well as "*religious vows*" were required to be taken. But by getting into communication with several of the members of the circle of Greek scholars in Paris and with Erasmus the leading scholar in Europe, and by obtaining permission to exchange the Franciscan convent for a neighbouring Benedictine abbey, Rabelais found his difficulties diminished. A result of the revival of the study of Greek in Rabelais's case was that when lecturing at Montpellier in 1530 on the "Aphorisms" of Hippocrates, and the "Little Art" of Galen, he was able to base his lectures on a very ancient Greek manuscript of Hippocrates and on his own copy of Galen's complete works (now in the library of University College, Sheffield¹), instead of on imperfect, mutilated, clericalised Latin translations, as other lecturers hitherto had done; and again in 1537, after he had been appointed one of the ordinary professors of the Faculty of Medicine, he used a Greek text

for his lectures on the "Prognostics" of Hippocrates. Rabelais had broad-minded views on education. He propounded a scheme which aimed at stimulating the memory as well as the faculties of observation and reflection. It was practical as well as comprehensive. It embraced what to-day we call the modern or science and classical sides of our schools, and it included physical, and what is more hygienic, training as well. The student was never to be idle; rest ensued from change not from cessation of employment. Rabelais's relations to the Church were influenced by the teaching of his contemporaries, Luther and Calvin. He hated the monks and fell foul of the Sorbonne, yet he escaped the "*Chambre ardente*" of the Parliament of Paris, which was a criminal court specially erected for the trial of heretics. He favoured many of the doctrines and practices of Protestantism because they favoured principles of free inquiry and individualism, yet he rejected the French Protestantism as a creed. He never wrote anything against the principal doctrines and leading features of the Roman Catholic faith, and he celebrated mass and performed other offices in, and continued to be a member of, the Church of his forefathers. Moreover, Rabelais was deeply impressed with the great importance of the study of the Bible, whereas his illustrious countryman Montaigne, who lived a generation later, went a long way beyond him in his independence of, and opposition to, the Church, and regarded the teaching of the Holy Scriptures in the vernacular as not only not "helpful but dangerous." But Rabelais was a humanist first, and a theologian in the second place; he attached greater importance to national unity than to any particular creed or any form of ritual. He possessed an active imagination and a sceptical and an inquiring mind, but was consistent, not dogmatical, in regard to matters beyond the scope of actual experience and human knowledge. Without sacrificing sincerity or exercising hypocrisy he was guarded in his hostility to the Sorbonne. Though he sometimes used risky phrases in attacking the ignorance of the clergy and the prevalent evils of the Church and its ritual he sheltered himself behind "a privilege" which he obtained from the French kings, François I. and Henry II., for his books; or, agitated by the burning at the stake of some contemporary writer, he thought it advisable to leave France from time to time and sojourn at Rome or elsewhere as physician to Cardinal du Bellay until the first bitterness aroused by the jests and satires in his new books had had time to be forgotten or tolerated.

Undoubtedly the monument which it is proposed to erect in commemoration of Rabelais's connexion with the ancient and illustrious Faculty of Medicine of the University will find its appropriate place at Montpellier. But considering the universality and the greatness of his fame one is led to ask, with the writer of the article in THE LANCET which I have referred to, why a more ambitious project should not be undertaken. There is, or there was, if my memory does not deceive me, a statue of Rabelais near the bridge over the river Vienne at Chinon in Touraine. At Chinon, "the famous and noble Chinon, the first town in the world," with its ancient fortress, now in ruins, standing on a rock 300 feet above the river, Rabelais is said to have been born, and certainly his father had a house there. At Chinon Henry II. of England breathed his last in 1189, after crying shame upon himself as a beaten king. At Chinon in 1429 Jeanne d'Arc awakened in Charles VII. that spirit of enterprise and patriotism which led to his surname of L'Indolent being changed into that of Le Victorieux, and resulted in the expulsion of the armies of Henry VI. of England, who at his accession possessed nearly the whole of France, from territory after territory of that fair country till Calais alone remained to the English. With Chinon is associated also the name of the celebrated favourite Agnes Sorel, who exercised so great and beneficial an influence over Charles VII., and on account of whom and of the services of Jeanne d'Arc history has also given him the sobriquet of Le Bien Servi. But neither at Chinon his birthplace nor at Montpellier the University where he graduated, will a statue commemorate Rabelais so worthily as a fine monument in the metropolis of his native land would do. As the embodiment of the early French Renaissance, as the "Great Jester of France" as Bacon called him, as the greatest of French humourists and one of the greatest humourists of the world, and as the man "who has

¹ I am informed by Mr. Loveday, the librarian, that the Galen is the property of the Weekly Board of the Sheffield Royal Infirmary. It is the Aldine edition of the Greek published in Venice in 1525.

brought Aristophanes back to life and who imitates so well the satirical art of Lucian" as Joachim du Bellay said of him, Rabelais merits the grateful remembrance of the Frenchmen of to-day as much as he enjoyed popularity amongst and the love of those of his own time.

MOTORING NOTES.

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The 15 h.p. Straker-Squire Car.

MOTOR-CARS are costly objects for medical men to invest in, and some of our readers do not seem to pay as much attention to the record of the firms with which they deal as they would with respect to, say, surgical instruments. The family history of a car is worth considering. Now everyone knows the name of Straker-Squire, for half the motor omnibuses bear that signature as a mark of their parentage, and motor omnibuses are nowadays tested severely and tried highly, so that the products of the firm which produces them must be able to stand a good deal of knocking about. This is a conclusion which a fairly long test of their one and only carriage model has confirmed in my mind. That they have specialised in the production of one model is to the advantage of the purchaser in the matter of quality and price, while it is another advantage that the car is English made, so that the owner can go to the place of manufacture and can see the component parts prior to their being put together, as well as watch sister cars being built and tested. It is true that nowadays a car may go, and probably will go, many thousand miles without an involuntary stop, still some mechanical tort may arise, so that it is as well to acquire by demonstration the anatomy and physiology of one's mount. With the 15 h.p. Straker-Squire car this is easily done, as the car is built throughout at Bristol. There are many opinions as to what constitutes a good doctor's car, but all admit, as being essential, sufficient power, smoothness and reliability, and quiet in running. A cheap car is dear if it constantly breaks down. With a view of ascertaining if the car in question possessed the necessary qualifications for medical needs I recently spent a day in driving one.

The chassis is fitted with four types of body—two-seater, four-seater, landaulette, and light runabout. I wanted to put the engine to as severe a test as possible, so as Messrs. Straker-Squire kindly left the choice to me I elected to carry out my trial run on the heaviest—that is, on the four-seater—with a Cape-cart hood and front glass, and in addition I loaded the car up with its full complement of passengers. Thus burdened the car did a short professional round in wet weather along the tram-lined narrow Woolwich road. It was on a Saturday, and Woolwich streets were thronged, so I had an ample opportunity to really test the brakes and control. Both answered perfectly to the slightest touch, and the way the car pulled up in traffic and started again, even on the top gear, was most satisfactory; while I may say that having all the brakes acting on the rear-wheel hubs answers just as well as the orthodox method of having one on the cardan shaft, and of course the former plan must save the transmission gear. Then we essayed a long run, and made for Sussex, over Shooter's Hill, which was done on the second speed easily, through Dickens's land, across country to Tonbridge, on to Battle, and then by rough lanes beside forests and on roads that showed what our car could do. Once we pulled badly, but the fault was mine, not the car's. We had stopped to admire a piece of scenery, and I dismantled the carburettor to find out its special features, in doing which I learnt that unknown carburettors need a little care in putting together, for in replacing the hollow spindle regulator, which controls the quantity of petrol, I neglected to adjust it at its former point, with the consequence that the mixture was too rich. So the car did not pull well, but as soon as the cause was diagnosed and the defect rectified the speed on the level was more than legal limit, and hills were easily negotiated, and mostly, even when they were bad ones, on the second gear.

The chief aim of the constructor of the car has been accessibility for inspection combined with simplicity. The engine has four cylinders cast in pairs, 87 mm. bore by

100 mm. stroke. The inlet and exhaust valves are on the same side and are operated from the cam shaft through the medium of a finger and extra light valve tappets, thus ensuring very quiet running. The cams are solid with the shaft, cut from the bar, and the design permits of the easy withdrawal of the cam shaft for inspection. The frame is of pressed steel, and the engine is hung directly on to it. An easily detachable steel undershield effectively protects the engine and transmission gear. The springs are semi-elliptic, and the shackles are provided with proper oilers, these being parts which usually escape lubrication. The water-pipes and cylinder passages are of generous dimensions, and the circulation, which is by thermo-syphon, is efficient. After a run of over 100 miles, which ended with a stiff hill climb, I found the engine cool, and I was able to hold my hand easily against the radiator. This latter is of the vertical gilled tube type, and a fan at the back, driven off the crank shaft, maintains the air circulation. The tension of the fan belt can be easily adjusted, as the fan spindle is eccentric and can be moved upwards or downwards by undoing a set screw. Ignition is by the now popular and satisfactory Bosch high-tension magneto, which is mounted in an accessible place in front of the engine and is driven by skew wheels off the two to one gear. The Bosch dual ignition can be had as an extra. Lubrication is by splash dippers at the end of the connecting-rods, picking up the correct amount of oil for the big ends and at the same time distributing it to the cylinder walls and gudgeon pins. The level in the crank case is maintained by a positively driven gear wheel pump; an indicator on the dash shows that the oil is circulating and when more should be added. The carburettor is fed by pressure from the exhaust. An auxiliary hand pump on the dash is fitted to permit of starting the supply to the float chamber. The carburettor is known as the "Ware," the feature of which is a simple contrivance whereby the amount of petrol passing to the jet can be varied. This method is simple and efficient, gives a correct mixture when properly set at all engine speeds, and acts without the use of any automatic spring or air valve, while from my experience during the day's journey I came to the conclusion that it was most economical. The clutch is of the old-fashioned, leather-faced cone type, and as springs are fitted under the leather the engagement is very gentle. The clutch and gear-box are connected by a double universal joint, and a good feature is that it can be dismantled without disturbing any other portion of the chassis. The gear box provides three speeds forward and a reverse, all operated by a single lever working in a quadrant, and the third speed is a direct drive from the engine to the differential. The transmission from the gear box to the back axle is by the usual cardan shaft and bevel gearing, the shaft being fitted with universal joints at either end. The live axle is designed so that the driving axle carries no portion of the weight of the vehicle. A particular feature is that the differential bevels can be removed without disconnecting the axle from the springs, and, in fact, without even the jacking-up of the road wheels; all that is necessary is to remove the hub caps, withdraw the driving shafts and dogs, take off the door at the back of the case, and then the bevels can be slipped out. The control consists of a hand control on the steering column, and the now universal foot accelerator pedal, coupled to the throttle on the carburettor, and there is no doubt that at times it is useful to have the two methods of regulating the throttle. The brakes, both the hand-controlled and foot, each act on drums integral with the road wheels. These are of the band type, are protected from mud and dust by an effective metal shield, and the back wheels can be removed without upsetting the adjustment of the brakes or removing the bands. They were separately tested on really steep hills and found to hold well and, what is more, to be soft and noiseless in action.

The foregoing description, I trust, shows that the Straker-Squire car has many interesting features, and should appeal to a large circle of motorists.

The Responsibility of "Back-Fires."

In a recent case, in which the owners of a horse claimed compensation for damage done by an animal frightened by a back-fire of a car his honour Judge Lindley held that if a machine, from some cause or other, does make a noise calculated to frighten a horse of ordinary nerve, while the machine is on the highway, then the machine for the time