of distomiasis of the liver and rectum, by Dr. Edward Cuffey, Physician to the British Hospital, Port Said, and other communications. The new periodical is well and abundantly illustrated, and altogether presents a handsome appearance. It contains on a separate page an excellent portrait of Laveran.

In the January number of *Janus*, Dr. J. A. Nixon, of Bristol, gives an account of a new MS. of Guy de Chauliac, including the *Practica Astrolabii*. Among the manuscripts of the Bristol City Library is one which formed part of the collection of Matthew, Archbishop of York, who in 1615 bequeathed a portion of his books and manuscripts to the city. This manuscript is a work on surgery in Latin by Guy de Chauliac (1300–1368), and the Bristol copy was made by John Tourtier for John, Duke of Bedford, between 1420 and 1435. The book is complete and includes a preliminary treatise on astrology, while to the end of the surgery is appended a Latin-English glossary. The first five double pages are occupied by the "astrology," which deals with methods of determining the position and influence of the planets, stars, etc. After this are ten double blank pages, as though, perhaps, the copyist had intended to include at some later date the treatises on "Cataract" and "Hernia." Then comes *La Grande Chirurgie* in full. It begins:

In dei nomine incipit inventarium seu collectarium in parte chirurgicali medicinae compilatum et completum anno Domini Millesimo tricentesimo sexagesimo tercio per Guidonem de Caulhiaco Chirurgicum Magistrum in medicina in preclaro studio Montispezzulani. Quodquid inventarium seu collectarium fecit scribi et taliter ordinari venerabilis vir magister Johannes Tourtier Magister in Chirurgia ad requestam altissimi excellentissimique et potentis principis Domini Johannis ducis de bedford Regentis regni Francie et Protectoris regni Angliae.

After this follows in black the usual prologue:

Postquam primo gratias egero deo omnipotenti.

At the beginning of each of the seven books are miniatures representing various surgical or anatomical subjects; the costumes are of an earlier date than those reproduced in Nicaise's edition published in 1890. The manuscript is not mentioned by Nicaise, nor was its existence then recognized. Dr. Nixon thinks it may be assumed that the MS. dates from between the "perpetual peace" of Troyes and the battle of Verneuil (that is, 1420–24). A name remarkably like that of "Johannes Tourtier Magister in Chirurgia," namely, Jehan Fourtier, has been found among the surgeons of Paris in 1424. Serving with the Duke, and acting as Principal Surgeons to the English army of Henry V were Thomas Morstede and Nicholas Colnet; the latter being a Frenchman was naturally acquainted with Guy de Chauliac's writings, and Thomas Morstede, Surgeon to the King, was a man who took the greatest share in organizing the education of surgeons in London. Dr. Nixon thinks it was probably at the instance of one or both of his surgeons-in-chief that the Duke ordered a copy to be made, perhaps enjoining its use upon the surgeons of his army. In a subordinate capacity served also Richard Ferris, afterwards Sergeant-Surgeon to Queen Elizabeth, one of the surgeons depicted by Holbein in his picture of Henry VIII presenting a charter to the Barber Surgeons of London; and a pupil of Ferris, Thomas Gale, wrote in 1563 the first book on surgery in the English tongue, in which he quotes freely from Guy de Chauliac.

MOTOR CARS FOR MEDICAL MEN.

ANOTHER TWELVE MONTHS WITH A MOTOR CAR.

By H. P. BARLOW, M.B.,
Parkstone, Dorset.

In the summer of 1903 I bought a second-hand Argyll car, but must draw a veil over the six months I laboured with it. Nevertheless, I learnt to drive on it, and acquired some skill in diagnosing the causes why a car will not go. In April, 1904, I bought a new 10-12-h.p. two-cylinder Argyll car for £350, and from that day to this the car has been an unfailing source of profit and pleasure.

My man who cleans the car has had no previous experience of motor cars, and I myself am not in the least mechanically inclined. But at the same time I must in fairness state that at the Parkstone Motor and Cycle Co.

we have a skilled engineer at our very doors whose charges are reasonable. On January 1st, 1906, the car had been in almost daily use for twenty months practically without giving any trouble, and to-day, after just on three years' similar use, after running close on 15,000 miles, the car is going, and looking, too, as well as ever.

The following are the total expenses for the year ending December 31st, 1906, excluding man's wages and rent of motor house:

REPAIRS, RENEWALS, AND OVERHAULING.			
February.	Examining and adjusting coil, taking carburettor to pieces, and cleaning ditto, overhauling ignition	0 12 6	
	Repairing starting gear... ..	0 2 6	
	Taking coil to pieces, adjusting stray connexions, new H.T. wire, etc.,	0 6 8	
	Examining for weak firing, taking out pistons, scraping and cleaning ditto and rings	0 8 8	
	Taking up play in brake parts and cardan shaft and adjusting... ..	0 3 4	
March.	Adjusting switch	0 2 0	
April.	Dismantling rear brake and fitting new links, etc. ...	0 12 2	
May.	Reseating valve	0 5 6	
	Fitting new H.T. wire	0 1 10	
June.	Grinding in valves, examining gear box, and minor adjustments	0 12 8	
July.	New brake rod, and fitting ...	0 3 9	
	Rewiring car and supplying L.T. wire... ..	0 10 10½	
	Overhauling car, cleaning carburettor and exhaust pipe, and adjusting coil	0 7 6	
August.	Fitting new rubber water connexions	0 3 0	
	Fitting new double coil, etc. ...	0 9 6	
September.	Dismantling clutch and parts, dress and re-erect ditto, examining gears, parts taken down and overhauled, differential half taken apart, examined, cleaned, and refitted, enlarging water outlets for tubing, new bands for brake, steering gear taken down and refitted and various adjustments, making and fitting new steering rod ...	3 13 10	8 16 3½
Tyre expenses:			
March.	Outer cover retreaded	2 2 0	
June.	1 Dunlop inner tube	1 19 2	
July.	1 Dunlop inner tube	1 19 2	
August.	2 Collier 810 × 90 outer covers	12 17 6	
December.	Tyre repairs for the year	1 18 6	20 16 4
Petrol for the year—260 gallons		15 8 6	
Grease and oil, do.		2 7 9	17 16 3
Accumulators charging for the year			1 14 6
Sundries during the year:			
	10 plugs	1 6 10	
	Voltmeter	0 8 9	
	Prested double coil	3 12 6	
	Spanner, 3s.; grease bags, 5s., pump tubing, 1s. 3d.; radiator cap, 5s.; sponges, leathers, waste, etc., 15s.; polish, 8s. 10d.; carbide and paraffin, 20s.	2 18 1	8 6 2
	Motor licence, annual	2 2 0	
	Dorset Automobile Club sub., annual	0 10 6	
	Driving licence, annual... ..	0 5 0	
	Licence for manservant... ..	0 15 0	3 12 6
Motor insurance			11 10 0
			72 12 0½

Remarks.—It will be observed, on referring to the number of sparking plugs bought and to the number of times the ignition system was overhauled or parts renewed, that ignition troubles were a constant feature up till August. I then bought a Prested double coil and two Darop sparking plugs, and from that date to this—February 23rd—no misfiring in either cylinder has occurred. The reliability of the car is such that any

day, without previous overhauling, it is just as ready for a 100-mile run as for, say, the 3-mile run into Bourne-mouth. I must add that I always drive myself.

NINETEEN MONTHS WITH A MOTOR CAR.

DR. A. HOWARD PIRIE (London, W.) writes: I began as an absolute novice with a Speedwell 9-h.p. car a year and seven months ago, and my expenses for repairs have been as follows:

	£	s.	d.
(1) Repairing pump	...	0	0 11
(2) New grease cap	...	0	2 6
(3) Varnishing	...	0	11 0
(4) Four sparking plugs at 6½d. ...	...	0	2 2
(5) Rubber tubing for circulation ...	...	0	0 11
		0	17 6

This, of course, does not include tyres and ignition expenses. I drive myself, and have a lad to clean the car. I have the car out almost every day, and have been to Land's End and back with it, and had it with me on two other holiday tours. For reliability and freedom from repairs I think it will be difficult to beat the record of this Speedwell car. It climbed into and out of Lynmouth last year, and any one who knows these hills knows how often a horse is required to help a car there. It has never failed to climb a hill or any road so far.

MEDICAL EDUCATION AND THE EXAMINATION FETISH.

DR. LAURISTON E. SHAW, Physician to Guy's Hospital, and a member of the Senate of the University of London, devoted his annual address before the Hunterian Society to a discussion of the true aim of medical education and the evil of the examination fetish. After a brief reference to the standard of preliminary education demanded before admission to technical instruction, in the course of which he expressed the opinion that it would be undesirable to add to the existing difficulties of the schoolmaster by requiring an intending medical student to specialize during his school days, he proceeded to dwell on the blighting influence of the examination system upon the whole work of teachers and pupils from the beginning to the end of the modern curriculum. On this point Dr. Shaw said:

The harmful influence of examinations upon learning has long been clearly recognized by educational experts, and is daily gaining more general acceptance. In many departments of education the fact that examinations still hold a prominent place is not due to any lack of hatred of their results, but to the difficulty of finding an alternative. Amongst the official teachers of medicine, however, it does not appear that these evils are so widely recognized as by other bodies of teachers. This is the more to be regretted because it is possible in medicine to set up without great difficulty alternative methods of securing what are supposed to be the objects of examinations.

The external examination—that is to say, an examination conducted by an examiner to whom the candidate is entirely unknown—was the ideal of those who worshipped the examination fetish. Such an examination tested only one power of the mind—the ability to keep a store of facts on the surface and to pour them out speedily in the presence of a stranger. The power of passing examinations, essentially created and promoted by the crammer, was a mixture of memory and cheek. On this point Dr. Shaw said:

This knack is truly an attribute of mind just as bulk is an attribute of muscle. It is just as illogical, however, to continually worry a man who is trying to develop higher faculties of his mind with investigations as to his memory as it would be to periodically test the lifting power of a man who is learning to play the fiddle. The comparison between these two absurd processes is very real, for the sort of work that would increase the violinist's muscular force would actually lessen the subtle powers of co-ordination essential to his art. In like manner does the cramming of a student's memory exercise a deteriorating effect upon his higher intellectual faculties.

The competitive examination acquired popularity not as the final act in a course of education, but as a preliminary step before conferring on the candidate a position of honour or remuneration, and was designed to prevent and replace nepotism. The external examination as an instrument of education was introduced, as a test of the work of state-aided schools, constituting the system long

known as "payment by results." This system had been abolished in elementary schools, but a system almost identical but for the absence of any direct money payment from the State existed in regard to medical education especially in London. The following are extracts from Dr. Shaw's further remarks:—

The teaching in our hospitals is being constantly interrupted by tests conducted by external examiners. For many of our students, who are of average ability, and, while aspiring to the higher college diplomas, as well as university degrees, do not fail to pass any examination, such interruptions may occur as many as a dozen times in the course of six years. And these interruptions are permitted to a series of courses of study which without them present almost an ideal opportunity for improving the powers of the pupils' minds. In almost every department of medical study—and, with proper organization, it should be so in every department—the chief teacher, and each of his subordinates, is engaged in increasing the sum of knowledge of his special subject, and in making, or assisting others to make, wise application of ascertained facts to actual problems before him. To associate the student as closely as possible in this double work of investigation and practice is to promote his education in the truest sense. The closest living contact between teacher and taught in mutual work is the surest way of developing the pupil's mental powers. But no sooner in the medical school do we introduce the student to his teacher than there is brought between them with chilling effect the spectre of the examiner. The absolutely fair person who, with no knowledge of the candidate's work beyond a bare recital of satisfactory attendance at so many lectures and so many hours' laboratory work, will proceed at the end of three, six, or twelve months, as the case may be, to test just those unimportant things that can be tested by examination.

Never can teacher or pupil forget the examiner's existence. Each is handicapped at every step by the question, Will this work pay? At the end of this hour's study shall I be a better answering machine? I have taught in a medical school for over twenty years, and I know, alas, only too well, the sort of teaching that will "pay" in this sense. In a desperate desire to get my pupils through their examinations so that they could begin to work for work's sake—the only sort of work that's worth doing, I have deliberately crammed them. Often my conscience has revolted against it, and I have taken advantage of their faith in my powers to get them through their examinations by engaging them in work that would improve the powers of their minds. After a time my subterfuge would be found out. As I adopted one or other of these methods, the method of cramming or of attempted mental development, I could fill or almost empty my out-patient room with certainty. For with the best intentions, none but the highest class of student can afford to seek true learning until he is through his examinations.

Too often when this time comes the student is obliged to separate himself from his hospital, and if he still has a desire for learning, he is handicapped by the isolation of private practice. But in many cases, whether thus handicapped or more fortunately placed, the student finds that his crammed brain is no longer capable of rational development. His desire for knowledge, his powers of observation, his capacity for reflection, his judgement and his reasoning faculties, have all been crushed, some perhaps out of existence, by the fifteen or twenty years of systematic education that he has suffered under the domination of the examination fetish.

Is there any profession in which the highest mental faculties are more necessary for even its humblest members than in that of medicine? What is the use of developing only the power of a man's mind to contain facts who is destined to practise in our profession? In such a progressive science the fact of to-day is the antiquated superstition of to-morrow. What we must aim at turning out of our schools is not the man primed with a complete knowledge of all possible beliefs held by his various examiners at the date of his qualification, but a man capable of criticizing these beliefs with sound judgement even if he has never heard of them before. We must turn out men sufficiently interested in their science to watch with an even mind the shattering of these beliefs by its progress, and able to estimate the value of others introduced to take their places. Every medical man should be capable of such accurate observation and true deduction that he may, however humble his practice, be able to make distinct contributions to the advancement of learning.

Nothing has been more depressing in recent years than the progress of the idea that a special race of researchers must be bred to advance medical knowledge. Men who are to be freed from the routine of education or practice, safely shut away in their laboratories from students and patients, and prepared for their incarceration by a period of special study, preferably in Germany. To encourage men's power of research or, as I should prefer to call it, the power of learning from every-day facts, must be our constant aim. This power exists in every sane human being at birth, and it is the chief condemnation of most modern education that it tends to strangle instead of to cultivate it. If we could stop the strangling process so far as medical education is concerned, and turn out all our students