SANITARY AND DOMESTIC APPLIANCES.

A Washable Wall-Covering.

ONE of the exhibits at the recent Ideal Home Exhibition was a washable wall decoration bearing the trade name of "Salubra." In reality it is a paint, the basis of which is zinc white, laid on parchment or cloth, the very great pressure to which the material is subjected rendering it solid and non-porous. We understand that although Salubra has not been "pushed" in this country until recently, it was introduced fifteen years ago, and has found much acceptance in French, German, and Swiss sanatoriums, and that in the Hôpital Lariboisière, in Paris, where one ward has been thus covered for several years, seventeen wards are now being similarly treated. We have examined this wall-covering, and have had its washable character amply demonstrated. In addition to its hygienic advantages, it has a cheerful surface and no unpleasant odour, while its strong backing enables it to seal hermetically all the small fissures and cover up irregularities in the plaster. For the operating theatre a plain, smooth tiling, readily washable with soap and water or disinfectants, is offered. The address of the Salubra Company is 18, Old Cavendish Street, London, W.

MEDICAL AND SURGICAL APPLIANCES.

A Suture and Ligature Spool-Attachment.

MR. B. RICHARDSON BILLINGS, M.R.C.S. Eng. (Folkestone), writes: As the result of some years of experimenting, I have devised a suture and ligature spool whereby rapid and easy suturing and ligaturing can be accomplished. The apparatus is a substitute for the more expensive "sewing machines" which have been devised from time to time, and consists of a light metal reel on a framework, which can be attached to most of the needle-holders in common use, or even to a pair of Spencer Wells artery forceps.

The reel has deep flanges which are perforated, allowing for thorough sterilization of its contents. Its axle is in-

stantly unmountable from the frame, by the turn of a milled nut on either side. The needle is half-curved, with the eye at the point, and, unlike the ordinary variety, once it is in the holder it need not be released. This alone saves some seconds per stitch. The needle is threaded and passed through the tissues in the ordinary way; the free end is then gripped with forceps, and the needle brought back again through the hole made, along the thread, which is then cut between tissues and needle. This is one suture made, and the needle is ready for the next. The *modus operandi* reads longer and more complicated on paper than it actually is, but the process, once seen, is easily understood and acquired. A continuous suture can be adopted with slight modification, while for rapid ligaturing the advantages are obvious. The attachment is cheap, adaptable, simple, efficient, clean, instantly changeable (allowing different materials or sizes to be used), time-saving and practical. It and its contents need not be touched at all by hand after sterilizing. A good all-round material to use on the spool is linen thread. The Holborn Surgical Instrument Company, Ltd., have carried out the idea from my models and sketches.

MEDICINAL AND DIETETIC ARTICLES.

Liquid Paraffin.

PURIFIED liquid paraffin is at present finding much favour as a laxative, its action in this capacity being chiefly mechanical, while it is also administered internally in certain other cases besides those of constipation and intestinal disorders. We have recently examined a sample of the liquid paraffin which is supplied for internal use by Messrs. Oppenheimer, Sons, and Co., Limited (179, Queen Victoria Street, E.C.), under the name "Petremol." It has a specific gravity of 0.882, is free from taste and odour, is neutral in reaction, free from sulphur compounds, and leaves no ash on ignition. It is coloured red, with a view to making it more attractive to the patient.

CYCLECARS AT OLYMPIA.

THE EXHIBITS ANALYSED.

By H. MASSAC BUIST.

INCLUDING the models staged with different classes of bodywork there are quite half a hundred different patterns of cyclecars from which to choose at the current exhibition at Olympia. The simplest way to arrive at a clear notion of the material available is to analyse the display according to price. It must be kept in mind that the definition of a cyclecar for competition purposes is a three or four-wheeled machine, the engine volume of which does not exceed 1,100 c.cm., and the chassis of which does not weigh more than 6 cwt. The total weight of models wherein chassis and body are built as one must not exceed 7 cwt. Practically all the vehicles staged have engines coming within the limitation as to volume, but it will be seen from the weights given in the accompanying table, in respect of all machines wherein such data is available, that they scale from 2½ cwt. in the case of four-wheeled monocoars to 10 cwt. for some two-seaters, which is the weight of a car proper. This therefore illustrates the lack of practical value in the present definition for cyclecars for competition purposes, since certain machines coming within the engine volume, using the body as part of the frame of the machine, and having, nevertheless, only 1 cwt. more weight than the limit, are thereby excluded from the show; whereas if the maker chooses to build the body as a separate part of the chassis he can be 3 cwt. over the limit for the complete vehicle—otherwise approximately 40 per cent.—and still stage his exhibit at Olympia! The whole classification is so absurd that it has been found necessary for the Society of Motor Manufacturers and Traders, which promotes the Motor Car Show proper, and for the Cycle and Motor-Cycle Manufacturers' and Traders' Union, which is concerned with the current display, to form a joint committee to ensure that no vehicle shall be excluded from one or other of the 1914 shows merely on account of its falling between one set of regulations or another. The current display may be tabulated as follows (see p. 1441).

Of the four dozen odd machines specified as separate types as to chassis, no fewer than thirty-four are four-wheelers. No new three-wheeled cyclecar model is introduced at the show. It may therefore be assumed that, as far as a year's development can indicate anything, the public conception of the cyclecar is being interpreted by the majority of those engaged in the industry as a demand for a four-wheeled machine, two wheels of which are power-driven. Indeed, in certain instances manufacturers who have hitherto been identified only with the production of three-wheeled machines now come forward with four-wheeled models as alternative types.

There has been an increase in the number of four-cylinder engines employed. Eleven of these types are now exhibited; they are in all cases water-cooled. In regard to two-cylinder motors, there has also been an increase in the practice of water cooling, which is now employed in thirty-one of the forty-eight exhibits tabulated. It will be observed that in the case of some of the cheaper machines reverse speeds are not furnished. Many firms that have hitherto used either belt drive or the chain have now taken to the bevel form of power transmission; nineteen bevel-driven vehicles are shown. The worm drive is also on the increase; there were six examples of the practice, so that half the exhibits staged have either the bevel or the worm form of final power transmission. Considering its cheapness and simplicity, it is perhaps extraordinary that there are only seven examples of friction-driven cyclecars. This class is, nevertheless, more in evidence this year than last, whereas the belt-driven vehicle is proportionately less in evidence, there being only ten examples.

POINTS ABOUT INDIVIDUAL EXHIBITS.

So much for general tendencies. As to the machines meeting the requirements of the medical man—who necessarily demands reliability of service, and therefore hard-wearing qualities—the general conclusion one arrives at is that there are more suitable types of vehicles to be discovered outside than inside the show, and that machines now being marketed as light cars are more suitable than those styled cyclecars. Some

No.	Vehicle.	Cwt.	Cylinders.		Speeds and Reverse.	Transmission.	Stand No.
			No.	Cooling			
185 0	10 Wilton	10	4	Water	3 and R.	Bevel	103
178 10	10-12 Tweenie	11	4	Water	7 and R.	Friction and chain Worm	21
175 0	10 Auto-carriers	9½	4	Water	3 and R.	Worm	86
175 0	10 Mackenzie	8	4	Water	3 and R.	Worm	18
165 0	10 Chater-Lea	8½	4	Water	3 and R.	Worm	54
165 0	10 Duo (underslung)	6	4	Water	2 and R.	Bevel	65
157 10	10-12 Marshall-Arter	9	4	Water	2 and R.	Bevel	141
155 8	8 Melen	—	2	Water	3 and R.	Bevel	102
152 5	10 New Imperial	—	4	Water	3 and R.	Bevel	78
150 0	10 Day-Leeds	9½	4	Water	3 and R.	Bevel	94
150 0	10 Duo (underslung)	6	2	Water	2 and R.	Bevel	65
150 0	8 G.W.K.	5½	2	Water	4 and R.	Friction and bevel Bevel	38
150 0	10 Mead and Deakin	—	4	Water	3 and R.	Bevel	42
147 0	8 Perry	10	2	Water	3 and R.	Bevel	112
141 15	12 Buckingham	6½	2	Water	2	Belt	35
141 15	8 Eric	6½	4	Water	3 and R.	Shaft*	30
141 15	8-10 Marshall-Arter	8	2	Water	2 and R.	Bevel	141
140 0	7 Swift	—	2	Water	3 and R.	Bevel	91
136 10	8 Chater-Lea	7½	2	Water	3 and R.	Worm	54
135 0	8 Humberette	7	2	Water	3 and R.	Bevel	134
135 0	8 Tiny	—	2	Water	3 and R.	Bevel	142
131 5	10 Adamson (underslung)	7½	2	Water	3 and R.	Belt	133a
131 5	8-10 De P. Duo	—	2	Water or air	2 and R.	Belt	137
130 0	8-10 Alldays	9	2	Water	3 and R.	Worm	77
130 0	6-8 Duo (underslung)	6	1	Water	2	Bev	65
127 0	8 Crescent	7	2	Water	5 and R.	Friction discs to chain Chain	138
127 0	8 Ranger	7	2	Water	2 and R.	Chain	117
126 0	8 Buckingham	6½	1	Water	2	Belt	35
125 0	8 Pyramid	6½	2	Air	4 and R.	Friction and belts	52
125 0	8 V.A.L.	6	2	Water	4 and R.	Friction and chain Worm	109
120 0	8 Chater-Lea	7½	2	Air	3 and R.	Worm	54
120 0	8 Humberette	7	2	Air	3 and R.	Bevel	134
120 0	8 Warne	6	2	Air	Multi and R.	Belt	106
115 10	6-8 Buckingham	6½	1	Air	2	Belt	35
115 10	8-10 Tweenie	6	2	Water	7 and R.	Friction and chain Chains and belts	21
115 0	8 D.E.W.	5½	2	Water	2	Chain	139
115 0	8 Ranger	7	2	Air	2 and R.	Chain	117
105 0	10 Morgan	4	2	Water	2	Chain	66
103 19	10 G.N.	5	2	Air	2 or 3	Belt	35
101 17	8 Wall-Tri-carriage	5	2	Air	2 and optional R.	Bevel	143
100 0	5-6 Auto-carriers	7½	1	Air	2 and R. (epicyclic)	Roller chain Bevel	86
94 10	4½ Wall-Tri-carriage	5	1	Air	2 and optional R.	Chain	143
89 5	8 Morgan	4	2	Air	2	Chain	66
78 15	5-6 Auto-carriers	5½	1	Air	2	Friction discs and chain Chain	86
78 15	7 Motorette	4½	1	Water	2 and optional R.	Chain	105
75 0	4½ D.E.W.	4½	1	Air	2	Chain and belt Chain	139
72 10	5 Carden mono-car	2½	2	Air	2	Chain	33
67 0	4 Carden mono-car	2½	2	Air	1	Chain	33
59 10	3½ Carden mono-car	2½	1	Air	1	Chain	33

* The Eric is a three-wheeled machine, the propeller shaft transmitting the power to the bevel pinion and crown wheel enclosed in a case fixed to the back wheel.

comparatively ambitious schemes are to be found at Olympia—as instance the Wilton light car, which has been represented in such reliability trials as have so far been promoted. Like all the four-cylinder motors at this show, the block form of casting is employed, the bore measurement being 59 mm. and the piston travel 100 mm. The natural circulation of the water through a wedge-shaped radiator is relied on for cooling purposes, but the motor is mechanically lubricated by a pump driven off the camshaft. The three forward speeds provide ratios respectively of 4 to 7 and 13½ to 1, the control being on the gate principle. Pressed steel Sankey detachable wheels are standard equipment.

A feature of the policy of the firm producing the friction-driven 10-h.p. Tweenie car is that the machine is guaranteed for 15,000 miles, the guarantee applying equally to the smaller and cheaper 9-10-h.p. model. The 10-h.p. Auto-carrier employs the unit principle in very neat fashion in regard to the details of the power transmission. The propeller shaft casing, the three forward speed and reverse gearbox and live axle, and the differential casing, as well as foot and hand-worked brakes, are assembled as a unit. The clutch details are novel. The equipment includes a fifth spare detachable steel wheel.

In all the Chater-Lea models, which come from a firm with a long established reputation for sound workmanship and material, the three forward speed and reverse gear boxes are controlled on the gate change principle, the ratios being common to all models—namely, 4½, 6½, and 12½ to 1. In the larger model the clutch is fashioned of many discs, while a lined cone type is used for the smaller one.

An interesting feature of the new Duo type of light car is the employment of an underslung frame, such as was used for the Stabilia chassis introduced many years ago at the Paris Motor Car Show, and such as is employed in the R.M.C. American car. An excellent feature of early motor car practice is to be found in quite a number of the light cars of the day, including the Marshall-Arter machines, the frames of which are fashioned of what is styled armoured wood, being suitably braced by cross members. This, like the Duo, is an example of a machine with only two forward speeds. In the case of the Marshall-Arter type the gear box is embraced in the live-axle scheme, while a neat form of spring drive is used. In quite a number of cases variations of spring-drive practice are used. The notion is a good one, as being calculated to shield the more fragile parts of the mechanism, such as gears and so forth, from the worst shocks to which clumsy or inexperienced drivers may submit them.

FRICTION DRIVER AND UNDERSLUNG FRAME.

The New Imperial more or less follows conventional car practice. By the employment of nickel steel for the crankshaft, only two large bearings are deemed needful. The G.W.K. is perhaps the most successful example of the friction-driven cyclecar, possibly by reason of advantage being here taken of the saving of weight by friction drive to furnish proportionately a very strong frame. The distribution of weight in the chassis is cleverly contrived, the power plant being about mid-length and in the centre of it. The four-cylinder Day-Leeds is practically a little motor car, save, perhaps, as to such minor details as the front axle; while the two-cylinder Swift appears in a new guise with the last vestiges of cycle constructional practice eliminated by the employment of a pressed steel in place of a tubular frame, and of an "I" section instead of a tubular front axle. There has likewise been a slight remodelling of the Perry cyclecar, which has now worm and segment steering, pressure-fed petrol, and an engine improved alike as to cooling qualities by the provision of larger water-jackets and in regard to balance. The water-cooled Humberette, with tie-rods to the back axle and radius rods to the front one, larger clutch, and improved gear control details, looks considerably more substantial than last year's vehicle, though it is still kept to the weight limit.

The Adamson is yet another example in the Show of a car with underslung frame; the motor is started after certain motor-cycle practice by pulling a long wire cable. The principle of the Lanchester suspension is used in the Alldays Midget car, for not only are cantilever leaf springs

used, but it also has radius rods, and the axle is allowed the particular form of play necessary to achieve the benefits of the Lanchester system of construction.

Altogether the exhibition reveals that a very appreciable degree of progress has been achieved as the result of a year's development. Handled by the medical man who has not too heavy country to negotiate, where road surfaces are reasonably good, where loads are not too heavy and speeds are strictly moderate—say not more than 25 to 27 miles an hour on the flat—the new style four-wheeled vehicle that is being variously termed a light car and a cyclecar may render good service for the money.

SOME MOTOR CYCLE EXHIBITS.

In regard to the cheaper and smaller examples, under the heading of proved durability, the motor cycle must undoubtedly be considered at the moment the better investment for the young medical man in the country. At the current show motor bicycle constructional progress is chiefly in the direction of elaboration, as instance the American-built Indian machine supplied with dynamotor for starting the engine and for generating the electric current for supplying the illumination. A healthy reaction from the general tendency towards complication, increased weight and power, is provided by a leading firm in the British industry, the Triumph Company, which introduces a two-stroke, air-cooled, light-weight model scaling only 125 lb. One of the pioneer firms in the motor-cycle industry in this country, the Motosacoche concern of Willesden, introduces some novelties in connexion with air-cooling details. Thus the 2½-h.p. single-cylinder air-cooled model and the 3½-h.p. twin-cylinder one are fitted with the new De Lissa air-cooled valve as the result of two years' testing before making the change. By this system, wherein the spring is above in place of below the valve, the mushroom head is pressed down on its seating in place of being pulled down on to it—a method of operation that solves the problem of the stem tending to pull away from the head. Further, the whole valve mechanism being exposed to the air, it tends to keep cooler than in the more ordinary practice, while the details are, of course, particularly accessible. A new 6-h.p. twin-cylinder side-car Motosacoche model is also introduced this year. It is of 496 cubic centimetres engine volume, and is fitted with complete electric lighting system, the accumulators for which are carried on a neat box on the footboard, while a miniature dynamotor charging them is attached to the back stays, being friction driven from the tyre. Another feature is the employment of a kick starter.

MOTOR CARS FOR MEDICAL MEN.

LIGHT CARS.

FRICITION CARS, LTD., inform us that they acquired some time ago all rights in the small "Pilot" car, to which attention was drawn at p. 1101 of our issue for October 25th, and that in the model for 1914 they have introduced what they regard as further improvements. The showrooms of the firm are in Heddon Street, Regent Street, W. [A naked chassis of this new model, as also a complete car, was on view at Olympia.]

SMALL CARS.

DR. T. GORDON KELLY (Desford Grange, Leicester) writes: With reference to Dr. Willett's letter in the JOURNAL of September 27th on the 10-h.p. Singer light cars, I note that he says, "It has a four-cylinder engine, the induction pipe being warmed, and thus giving an easy start up in the morning." It would be interesting to learn how Dr. Willett deduces the latter statement. Surely it is obvious that the engine must be started and running for a little time before the induction pipe becomes warm. Further, if he thinks the facts that this car only requires a pint of water in the radiator a week and can do forty-four and a half miles to the gallon of petrol, are startling, what would he think of my 12-h.p. four-cylinder De Dion that will run practically all the summer months without the addition of any water to the radiator, and do (although twice as heavy as the Singer) thirty-five miles to the gallon of petrol when driven at an average speed of twenty-five miles an hour?

THE next meeting of the French Congress of Surgery will be held in Paris on October 5th, 1914, and following days, under the presidency of Dr. Maunoury of Chartres. The following questions are proposed for discussion: Traumatic lesions (closed) of the wrist; treatment of cancer of the tongue by cutting operation; pararenal tumours.

ROYAL COMMISSION ON VENEREAL DISEASES.

THE following is the official report issued to the press by the Secretary of the Royal Commission on Venereal Diseases:

At the third meeting of the Royal Commission on Venereal Diseases, held on November 13th, Dr. R. W. Johnstone, Medical Inspector of the Local Government Board, gave evidence which followed generally the lines of the Report on Venereal Diseases written by him, and issued by the Local Government Board in August last.

He found much difficulty in arriving at a conclusion on the question of the prevalence of the diseases in the population. The figures given by the Registrar-General could not be relied upon for information of the number of deaths from venereal diseases, and this was inevitable owing to the reluctance of medical practitioners to certify deaths as due to this cause. Dr. Johnstone was impressed by the fact that the death-rates from a number of diseases known to be caused in many instances by syphilis, instead of showing a decrease, as would be expected if syphilis were diminishing, were stationary or tended to increase. Turning to the figures relating to venereal diseases in the army, he agreed that they showed remarkable decreases, but he considered that they were subject to some qualifications, and in any case he was not satisfied that they could be taken as an exact reflection of the state of the civil population. He laid stress on the fact that the men in the army, through the instruction given by their officers, were much better educated with regard to these diseases than was the ordinary civilian. For the purpose of obtaining trustworthy statistics of the prevalence of these diseases, he thought that certification of deaths should be confidential, but that this change should be made with regard to all diseases and not only venereal diseases. He was of opinion that information of value might be gained if a special return were obtained from general hospitals. On the question of notification of the diseases he was opposed to the introduction of any compulsory system at the present time. He understood that there was a possibility of a system accompanied by the names of patients being put in force in one of the Scandinavian countries, but in those countries treatment by quacks did not flourish to the same extent as in England, and he thought that there was not the same danger of notification leading to the concealment of the disease. From the point of view of the public health of the country in relation to venereal diseases, the objects of primary importance to be secured were the prompt recognition of the diseases and their early treatment. To this end he advocated that facilities for laboratory diagnosis should be provided, and that the available hospital accommodation, which at the present time was entirely inadequate, should be supplemented. He was not in favour of the erection of additional special hospitals to deal with these diseases, as he was anxious to avoid anything which would tend to have a deterrent effect; he was of opinion that the more the general hospitals could be used the more freely patients would present themselves for treatment. Dr. Johnstone pleaded for an attitude of greater frankness on the part of the public with regard to these diseases. If the public were properly educated in the matter, and the necessary facilities for treatment were provided, there was now an opportunity of reducing the diseases to very small dimensions.

On November 17th, statistical evidence as to the prevalence of venereal diseases in the army was given by Lieutenant-Colonel Scott, Deputy Assistant Director-General of the Army Medical Department. The figures furnished by Colonel Scott were for the period from 1888 to 1912, and related to the rejections of recruits on account of venereal disease, the admissions to hospital, the numbers constantly sick, and the numbers invalided from the service from this cause. Under all those heads remarkable reductions were shown. The rejections on recruiting had fallen from 0.63 per cent. of the candidates in 1890 to 0.14 per cent. of those presenting themselves in 1912. The admissions to hospital in the United Kingdom, which stood at 224.5 per 1,000 of the forces in 1888, had dropped to 56.5 in 1912. There were corresponding falls in the figures of constantly sick and invalids. In the case of