

### THE DOCTOR AS AN AUTOMOBILIST.

It would seem that of all classes in the community the medical profession could derive the most benefit from the automobile, but until recently the danger of a breakdown and the risk of having to come home ignominiously in tow has deterred the great majority of physicians from trusting themselves to any newfangled contrivance. Although the good book says that "the horse is a vain thing for safety," yet by comparison with the early autos the faithful animal has seemed the embodiment of all virtues.

Such improvements are going on continually, however, in the manufacture of motor vehicles of all kinds that more and more, especially in cities the doctors are seen "bubbling" about, with great saving of time and expense. At first the auto like the bicycle was developed as a sport, and the keen competition thus produced, with the large sums which could be obtained for superior mechanisms were the principal factors in the evolution of the modern machine. At last, however, the minds of manufacturers are turned to producing an automobile which may not go as fast as some but which will be sure to bring the owner home again without accident or delay. It is dawning on the minds of the trade that there are people who are not anxious to go at rates above what the law allows, and who want a strong efficient reliable machine, not for pleasure but for business.

It is time that such a machine were produced, if only for the 140,000 physicians in this country. It must be simple enough

to render it unnecessary to keep a chaffeur, cheap enough to come in competition with the outfit of a good horse, a well-built buggy and a strong and well-made harness, that is somewhere from 600 to 800 dollars. It must be able to climb any hills, and strong enough and well-made enough to keep in repair. It must not freeze if left standing in winter, or if kept in a cold carriage-house. It should be so made that it can have a hood for bad weather, and must have room for a receptacle in which instruments or other requisites can be carried.

There are various machines now on the market which aim at and fulfill these requirements, in fact the choice is somewhat bewildering. It is something like employing a physician. If the patient survives he is glad that he made a good selection; otherwise . . . !

Three types of machine present themselves. First there is the electric auto propelled by a storage battery, clean, safe, easily managed, but expensive, heavy and costly in the matter of repairs. It can of course only be used where there is a supply of electricity. Although this type will undoubtedly be improved, especially if Edison's new storage battery comes up to expectations, yet at present it is hardly available as a practically useful vehicle for business purposes for physicians, except in level cities and where expense is not a matter of great consideration.

The explosion type of engine seems at present to be most popular. For large and heavy machines of high speed and great cost it is the only practical one. It has been so improved that a water-jacket for cooling the cylinders is no longer necessary so that there is nothing to freeze in cold weather. It is always ready for service at a moment's notice, and there is no waste while it is left standing during calls. The reek of half-burnt naphtha is not so bad but what it seems to be cheerfully endured by the owner, although it is very offensive to the passer-by. The chief objection to this type is that the motor will not "note" unless the spark is delivered unfailingly, and at just the right instant. This introduces an electrical and mechanical complication which is responsible for most of the annoying delays and breakdowns. The very fine engines are expensive and the cheap ones are rather liable to get out of order, and the owner must

be something of a mechanic and of an electrician to find the trouble and remedy it. If he has these qualities he will find that at a moderate price he can get a very serviceable vehicle.

The remaining type of auto, which is the original type, is the steam engine. This has been improved and evolved to a high degree. By a lamp fed with naphtha steam is generated in a narrow, thick, coiled tube, so that the pressure is under immediate control; the power is generated promptly, if not instantaneously, and as there is no boiler there is hardly any chance of explosion. By leaving the lamp lighted and turned down during calls the water will not freeze, and when not in use as at night it can be drawn off. For a physician who may want his vehicle at night it is not difficult to arrange to keep it in a place where water will not freeze. The engine is so light that a vehicle to carry two can be built which weighs comparatively little, and therefore the tires are less expensive and less liable to wear, so that such machines are comparatively economical in maintenance, as well as in first cost.

The machine is easy to understand and there are no such disturbing factors as in the explosion engine. There are few country stores where stove gasolene, fit for burning in a lamp cannot be procured, so that the owner of a "steamer" can replenish his supply anywhere. For steady work, and for carrying one person, with the possibility of carrying another, this type of machine has many advantages which the physician who uses an auto for business will appreciate.

Whatever be the type of machine employed, the knowledge that it will never get tired, and does not have to be fed, and that it can stand out in the cold or the sun without suffering will appeal strongly to the humane doctor, while the saving in his time, and in the ability to go fast when necessary, make the possession of an automobile eminently desirable.