#### The Tariff.

The most important item to motorists in the recent tariff revision is undoubtedly the remission of the 20% duty on British cars. We do not propose to discuss the nature of this remission as opposed to the increase of 10% (20% in all) on foreign built cars, but it is self evident that the change will greatly enhance the sales of the British machine—sales which throughout the Colonies exceeded those of all other countries' makes by 75%.

# "Cow Catchers for Cars."

"Cow-catchers" on motor cars may be seen shortly. Mr. J. F. Ausell, a London barrister, who was induced to consider the subject by seeing a man pinned under the wheels of a car in Trafalgar Square, is patenting an invention which is now under official consideration. This life guard is V shaped, sloping from top to base, and projecting beyond the wheels and mud guards, so that a person struck would roll off away from the vehicle. The guard is made to strike below the knees, and the base has a pneumatic or resilient covering. It is said to be practical for all kinds of cars.

One difficulty for inventors, however, is that many cars are already of regulation length—twenty-three feet—so that a protrucing cow-catcher would make the vehicle ill\_gal. In the case of small fast cars another difficulty has been that at high speeds all the proposed life-saving apparatuses investigated have been more likely, than otherwise, to drop on the victim and crush him.

### In Praise of the Steam Car.

Perhaps the most noticeable point in the development of the modern touring carriage is that during the last three of four years the steam car has enormously improved. This form of power (an English expert writes) was, from the first, terribly handicapped on account of the extremely rubbishy little vehicles which were originally imported into the country, and which created the greatest prejudice against the system as a whole.

Things now, however, are very different, and there are on the market several types of steam cars which give great satisfaction to their owners; and one of the most noticeable facts in touring about the country is that one sees an ever-increasing number of motor-cars thus driven. One cannot get away from the fact that a two-cylinder double-acting steam engine exerts a steadier and smoother drive than do six-cylinders with petrol, while a single cylinder double-acting steam engine has the same effect as regards the turning movement of the crank shaft as have the four cylinders of the petrol engine.

Moreover, it is to be remembered that the gear box, with its trains of cog-wheels, the delicate carburetter, together with the whole ignition system is swept away when fuel is burnt externally instead of internally. Some steam vehicles burn paraffin, and run over fifteen miles on a gallon of it, at a cost of sixpence. There is a tendency in some quarters to adopt a Pecksniffian attitude towards steam cars, but from many sides one learns that the public is now beginning to be considerably interested in them.

#### NOTICE TO ADVERTISERS.

Change Advertisements for next issue should reach "Progress" Office not later than the 10th inst., otherwise they will have to be held over.



MOTOR-RACE TRACK, BROOKLANDS, ENGLAND, On which S. F. Edge will be pitted, in a 6-cylinder 60 h.p. Napier, against the world.

## Look to Your Steering Gear.

The following extremely awkward happening has come under our notice .- "The rod connecting up the steering lever to the front wheels dropped off when the car was being driven through the streets of a town. Luckily, the car was travelling in a straight line and very slowly, otherwise there might easily have been a very serious accident. In this particular steering gear there was quite a lot of side wear on the unhardened socket and on the sides of the hardened ball, and, through lack of inspection, these were allowed to become so worn that the steering rod fell oft the ball, thus leaving the car unsteerable. Now, had the joints been examined and lubricated, this would not have happened, as, in the first place, lubrication would hake reduced wear, and, in the second, examination would have revealed what was actually happening."

We might write three columns on this incident, but it would be useful only to those who have not sense enough to come in out of the rain. Such are not to be found amongst the readers of Progress.

We need only, by way of conclusion. refer to the late accident in Italy. Five persons were driving towards Naples on a cliff road, when their car, without warning, simply turned towards the precipice and plunged off the road, killing every one of its passengers with horrible mutilation. The above paragraph is a clear exposition of the probable cause of that fearful catastrophe. We say again: "Look to your steering gear!"

#### ACHIEVEMENT STRANGER THAN FICTION.

An adjustable hall is one of the many useful and desirable developments of the building art which have hitherto been supposed to

belong to the region of dreams. We learn, however, from an American paper that the thing is now an accomplished fact. A new theatre, at St Paul, U.S.A., is capable of conversion, from a vast auditorium, seating 10,000 people, into a theatre with less than half that seating accommodation. Apparently there is no need for the audience to move during the transformation process. If the audience does not come up to the expectations in point of numbers, it is quite possible, apparently, to reduce the building to more convenient dimensions without incommoding anybody.

Thus was it done in the above theatre for a concert after a big meeting:—"At a signal from A. H. Stem, the architect of the building, the electric motor concealed from view was started and the cables attached to either of the sixty-ton masses of steel which go to make up the movable boxes tightened. Each side of the house began moving towards the centre, enclosing the audience, slowly but surely, the ends of the boxes nearer the stage moving in graceful curves, the end further from the stage remaining stationary. As the boxes began moving outwards the scene shifters began their work. The sectional sides were erected around the chairs of the orchestra, the canvas ceiling was lowered to meet the sides, and when the boxes had reached their destination the stage Then came the setting was all in place. lowering of the proscenium sides. A section of the ceiling on either side of the proscenium opening began to descend. It was discovered that each section carried with it a long frame structure covered with asbestos and exactly fitting the ends of the boxes. When the proscenium sides were in place the spectators realised that instead of sitting in one end of a big convention hall they were sitting in a theatre, with the stage, while looking small, yet having a proscenium opening of 60ft, and a depth in proportion."