

## MOTOR NOTES.

"The real inventor of the Zeppelin was a Jew named David Schwarz," says the "Jewish World." "This man planned and invented the first rigid airship in 1892, and tried to bring it to the notice of the various Governments, but only the German General Staff would look at it. On January 13, 1897, the German War Office sent Schwarz a telegram asking him to visit Berlin with his model for a trial flight. The telegram reached Schwarz in the street, and he was so overcome with joy that he fell dead on the spot. Notwithstanding, the trial flight was made on Schwarz's vessel, and among the spectators was Count Zeppelin, who adopted the idea, improved it, and brought it to its present 'comfortable' perfection."

Through American sources we learn that most of the German motor car manufacturers are working 24 hours each day in an endeavour to keep up with the demands of the army officials. In most of these factories there is great difficulty in carrying on the work, as so many of their workmen have been called to the front, and it is extremely difficult to secure skilled labour anywhere in the country now. In some cases the employees of shops engaged on Government contracts have been sent back to their work in uniform, to enable the work in hand to be completed. A number of factories have been taken over entirely by the Government, and some near to the scene of activities have been devoted entirely to repairing damages sustained at the front. This is particularly the case of Belgian factories. Besides the scarcity of labour the difficulties encountered are in securing supplies of rubber for tyres, and in the transportation of materials required, even in the case of Government contracts.

At what height are the military air-pilots flying when carrying out attacking work? So far there has been no definite statement in the cabled reports, but it is to be presumed that they are flying at a height of between 1500 and 2000 feet. If it were not for the weight of the armour there is no doubt that an altitude of about 1000 feet would be found suitable, but the thickness of the steel plate becomes too serious an item at that elevation. The minimum thickness of the most perfect armour that will stop a bullet at 1000 feet, from a .303 Mark VI round-nose bullet is 3 mm (one-eighth of an inch), but if attacked by the modern pointed-nosed Mauser bullet, nothing lighter than 5mm. or 6mm. will suffice. If 2000 feet is taken as the minimum height, 2mm. for the .303, and 3mm. for the Mauser, are

the figures, and apparently it is necessary to take 2000 feet as the limit, for to be effective the armships can carry only that weight of metal. On this question of armour anything less than the necessary thickness that will definitely stop a bullet is useless. A mushroomed or ragged missile that has pushed its way through an insufficiently strong plate is more dangerous than the clean-cut article. No armour at all is better than armour that is too thin.

It is understood that a prominent English Midland firm proposes putting a complete car on the market at 55 guineas, inclusive of dynamo lighting set. Standardisation and a big output should make production possible at that figure, and it will stem the tide of the American invasion.

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A Whangarei woman has been licensed as a driver of a taxi. The inspector said that the applicant was well qualified for the work. It may be added that in Bienheim a woman who was previously driving a cab has now turned her attention to taxi-driving.

The German press announces that the unrivalled scientists of the Fatherland are evolving substitutes for rubber among the many vital products that are in danger of shortage there owing to the pressure of the Allies. Synthetic rubber is not of any particular use for tyre manufacture so far as past experience is a guide, and in addition demands some considerable time to ripen between manufacture and use.

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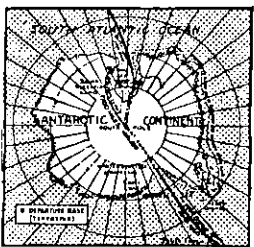
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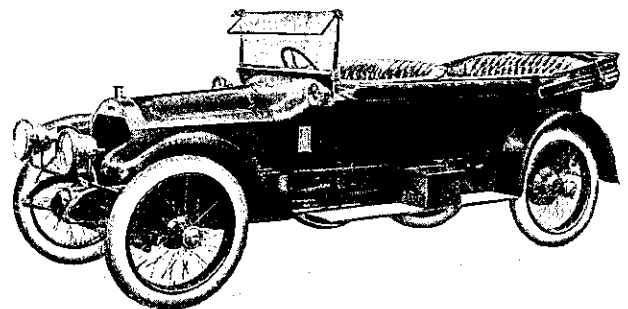
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