

Safety at Speed!



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COLAS of the Linas-Monthéry Race
Track and the tributes of the racing
motorist to the excellent surface provided.

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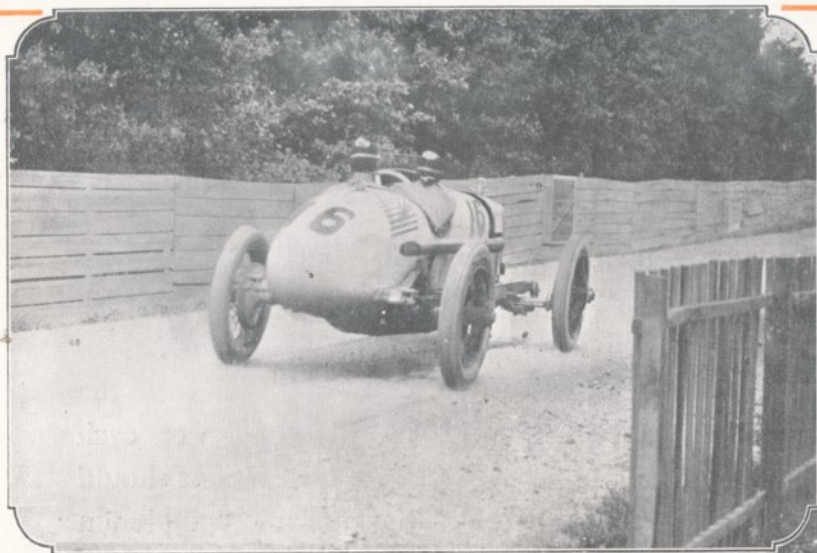
Preface

THIS booklet is the history of the construction by the Colas method of the Motor Racing Track at Linas-Montlhéry, outside Paris. In addition to describing a great engineering achievement, it gives ample proof that the Colas grouted road is the ideal surface for the modern car.

In order to show the wear and tear imposed upon a surface by cars travelling at a high speed, it is fitting that this account should

be prefaced with some photographs of the roads upon which the Grand Prix of 1921 was run at Le Mans. On the next three pages will be seen the havoc wrought by the cars after each successive lap. These illustrations should be compared with the photograph on page 17 which was taken *two years* after the Linas-Montlhéry track had been built; although in almost constant use the surface is as good as when it was put down.



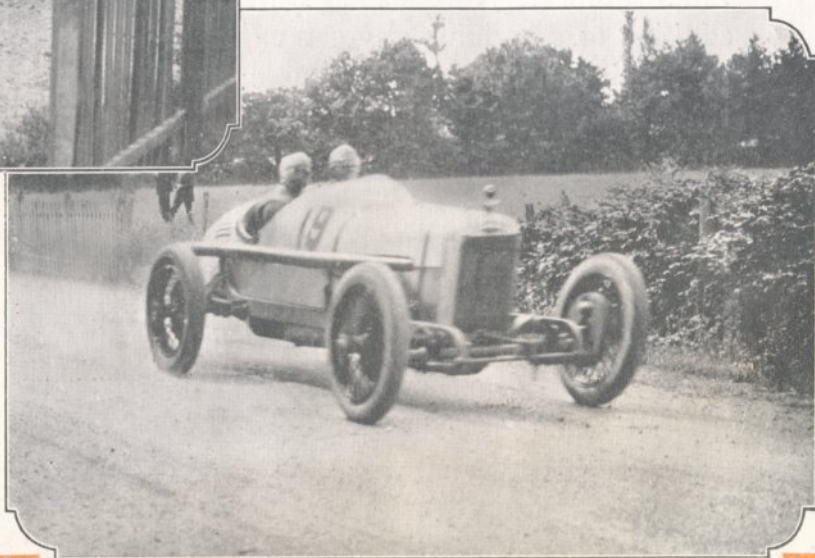


ROAD RACING UNDER OLD CONDITIONS.

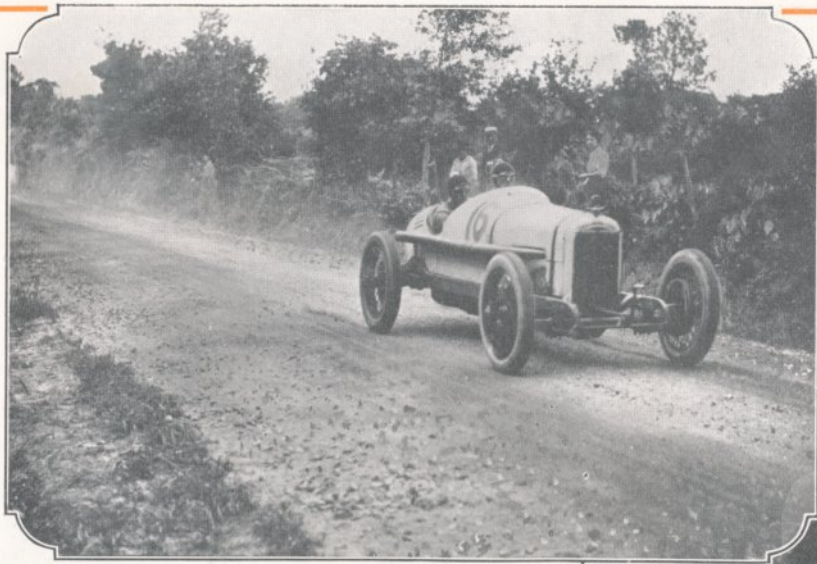
GRAND PRIX, 1921 (Circuit du Mans).

(Above). At the end of the 5th lap.

Photograph showing how the road surface gradually disintegrated during the race.



(Below). At the end of the 10th lap.



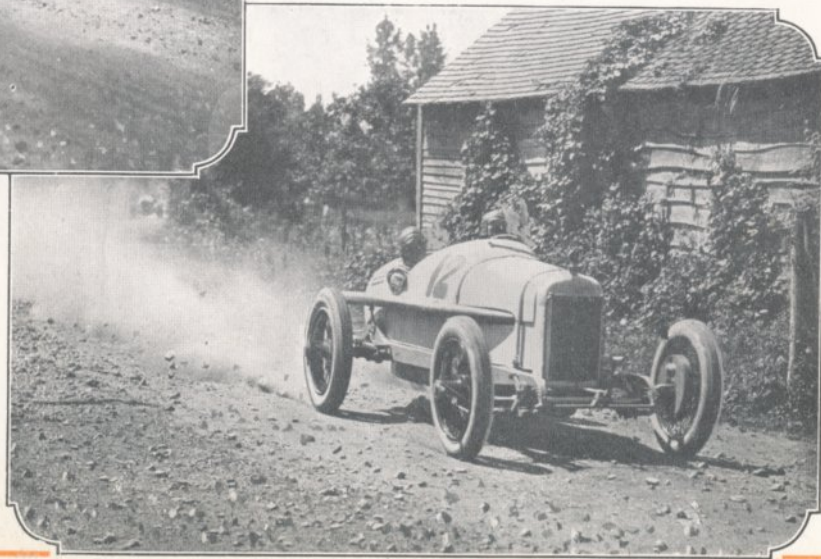
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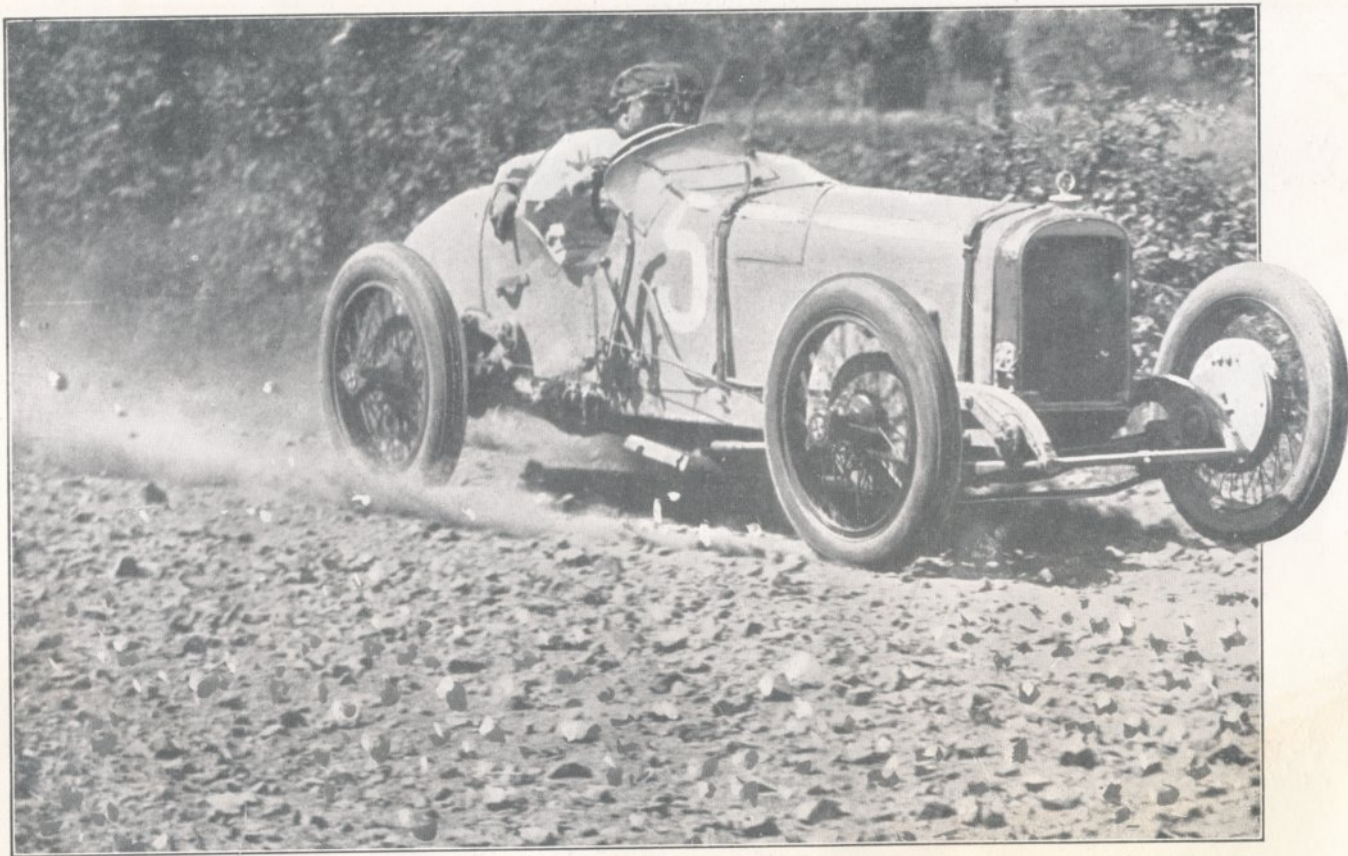
GRAND PRIX, 1921 (Circuit du Mans).

(Above). At the end of the 15th lap.

The photographs on this page clearly depict the roughness of the road at the end of 15th lap, becoming worse on reaching the 20th lap.

(Below.) At the end of the 20th lap.





GRAND PRIX, 1921 (Circuit du Mans).

Driving through a stone barrage at the end of the 25th lap. This shows graphically the terrible state of the track towards the finish of the 1921 Grand Prix.

Compare this illustration with the road surface at the finish of the 1925 race shown on page 15. COLAS made this possible.

Photograph published by kind permission of the "Autocar."

A Great Achievement

THE construction of the motor racing track at Linas-Montlhéry on the outskirts of Paris ranks amongst the greatest achievements of road engineering. For two reasons this work is unique.

Firstly, because the track was built and completed in six months in spite of considerable engineering difficulties and mid-winter conditions. Secondly, because the completed surface has withstood the severe test imposed by racing cars without any sign of wear; up to the time of writing (November, 1927), no maintenance work has been necessary other than a few slight repairs.

The building of the Track was undertaken by our French Associates, the Société Générale d'Entreprises of 56, rue du Faubourg St. Honoré, Paris, a firm of international repute. The work was begun in January, 1925, and had to be

completed by July the same year in time for the Grand Prix of the Automobile Club of France. Eleven miles of track had to be constructed, involving the excavation of cuttings and the building of embankments, as well as the removal of some 50,000 trees. In spite of prolonged periods of snow and frost, and the delays caused through unforeseen difficulties, the Track was completed in time for the race.

With the exception of the sharp turns, which are concrete, the Track was surfaced with graded quartzite grouted with COLAS. To this a sealing coat of COLAS was applied, blinded off with $\frac{3}{8}$ " chippings.

The following letters from four of the most prominent persons in the Motoring World testify as to the excellence of the surface under racing conditions.

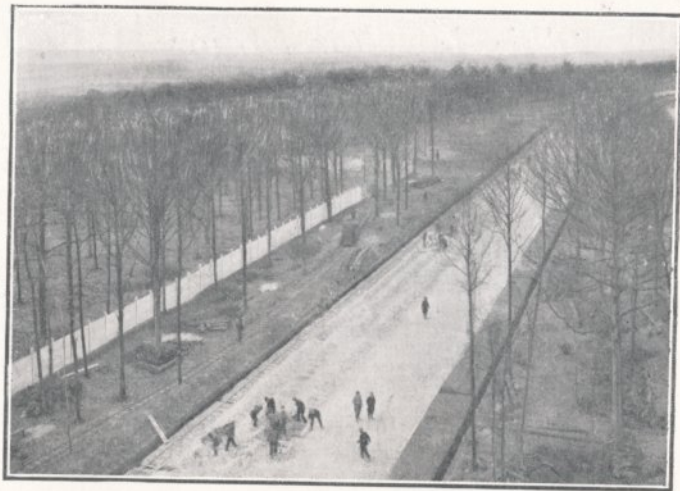


*Trees being cleared at Montlhéry.
By the 15th January 50,000 trees
had been removed from the site.*

*In January, 1925, the ground on which the
Montlhéry Race Track was built looked like
this. It was a huge task which the Société
Générale d'Entreprises completed in order to
have the track ready for the Grand Prix by
July of the same year.*



Grading in process, showing weather conditions under which this work was carried out. In the making and in service, a Colas road is unaffected by the elements.



The aggregate (quartzite) being laid and consolidated prior to grouting with Colas.

This is what Major H. O. D. Segrave (the famous Racing Motorist) writes to us:—

12, Princes Street,
Hanover Square,
W.1

TO ASPHALT COLD MIX
(1925) LTD.

Dear Sirs,

Having driven in the Grand Prix at Montlhéry, I have the greatest pleasure in giving you my observations on the behaviour of the track during the difficult conditions under which the Race was run. I am particularly glad to do this as I consider the surface the safest I have ever been asked to race over. I write as a road user of exceptional experience, who during the last six years has had very peculiar interest to observe road surfaces in all their forms and under every possible condition of weather. I have no bias in favour of road materials, but for the benefit of the general motoring public would like to see in this country reproductions of the surface at Montlhéry. I am not a road engineer, and can only bring a lay mind to bear on the technicalities of these various materials, and in consequence can only judge by the results I have observed. These results have been obtained by driving cars in road races abroad, during the course of which extremely high speeds have been attained. While not advocating excessive speeds on highways, it should be borne in mind that the factors which enter into safe driving at excessive speeds are always present for safe driving on our main roads. But the

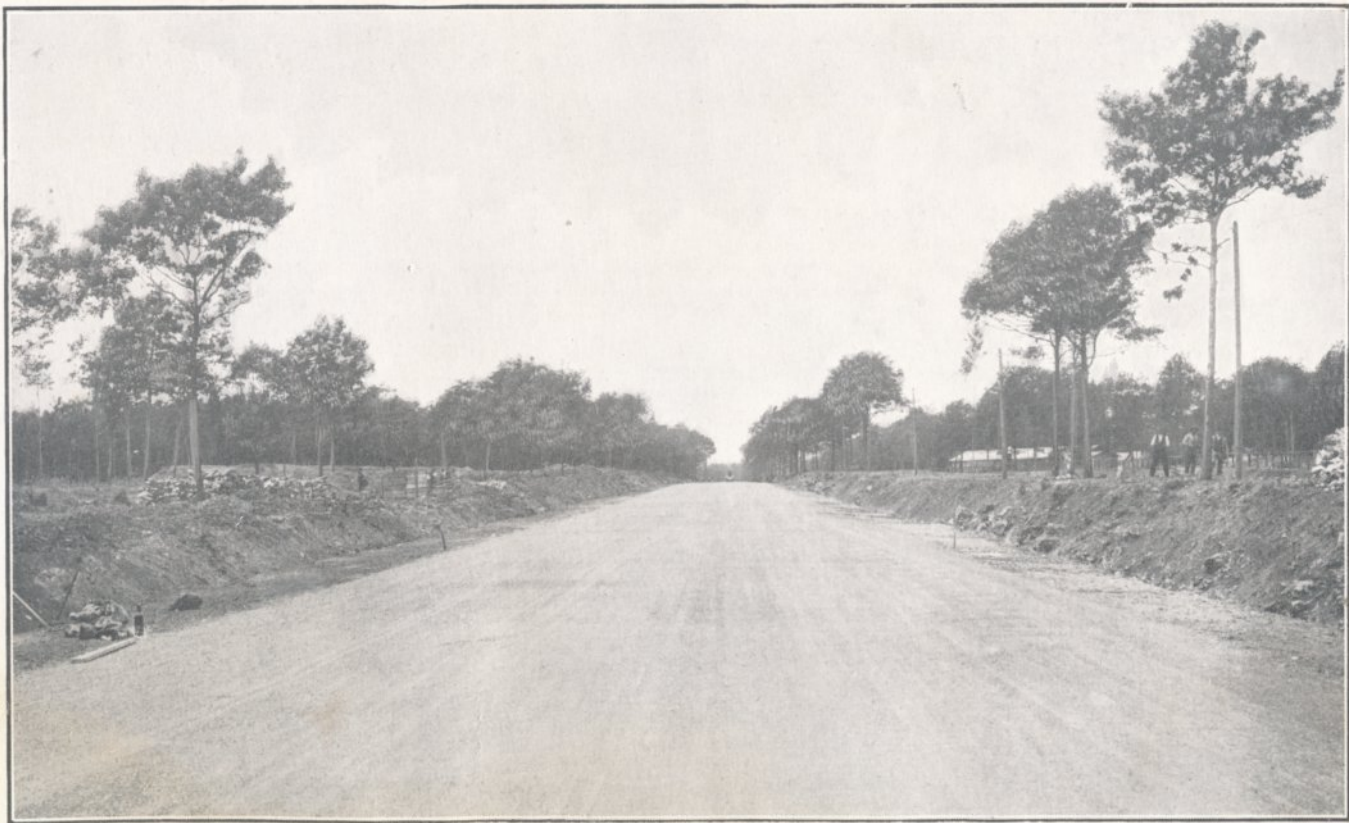
variety of vehicles such as are found are an additional danger not to be contended with in racing.

However, the point I wish to make clear is that, at a high speed, the material forming the surface of the road plays an all important part, and is studied very carefully by the driver in order that he may know to what lengths he may depend on his wheels gripping. In the case of a road such as that of the new racing circuit at Montlhéry, where different types of surfacing material are employed at different points, anyone driving over it at high speed can form a very good idea of its "anti-skidding" properties. What is more important for the layman to bear in mind, however, is that on any given surface, whether wet or dry, most modern cars can proceed with safety at, say, 35 m.p.h. provided they do not have to negotiate corners, but at racing speeds of over 100 m.p.h. this is quite impossible, and it is not an exaggeration to say that the driver's life depends on his knowledge of the road surface.

For safety in wet weather, the bitumen and granite type of construction employed at Montlhéry has resulted in by far the safest road I have driven on at high speed, and it is with great satisfaction that I have learnt that the system of construction employed at Montlhéry is of English origin and that roads of a similar type are gaining favour with the various surveyors in this country.

Yours faithfully,

(Signed) H. O. D. SEGRAVE.



*GRAND PRIX, 1925 (Circuit de Linas-Montlhéry).
A finished portion of the COLAS grouted track after the trials.*

*M. DELAGE, of the well-known firm bearing his name, also writes of the track,
of which the following is a free translation :—*

140 AV. DES CHAMPS ELYSEES,
PARIS, 3RD DECEMBER, 1925.

To the SOCIÉTÉ GÉNÉRALE D'ENTREPRISES, PARIS.

Sirs,

We have great pleasure in testifying that the track at the Montlhéry Autodrome which you built at the beginning of the year, presents incontestable advantages from the point of view of automobile driving.

We were able to obtain with all safety on this track very high speeds, thanks to the very special powers of adherence presented by the Colas road. A Colas road is never slippery, not even under the effect of torrential rains, as was the case on the day of the Grand Prix, and the impression of safety for the drivers was firmly established.

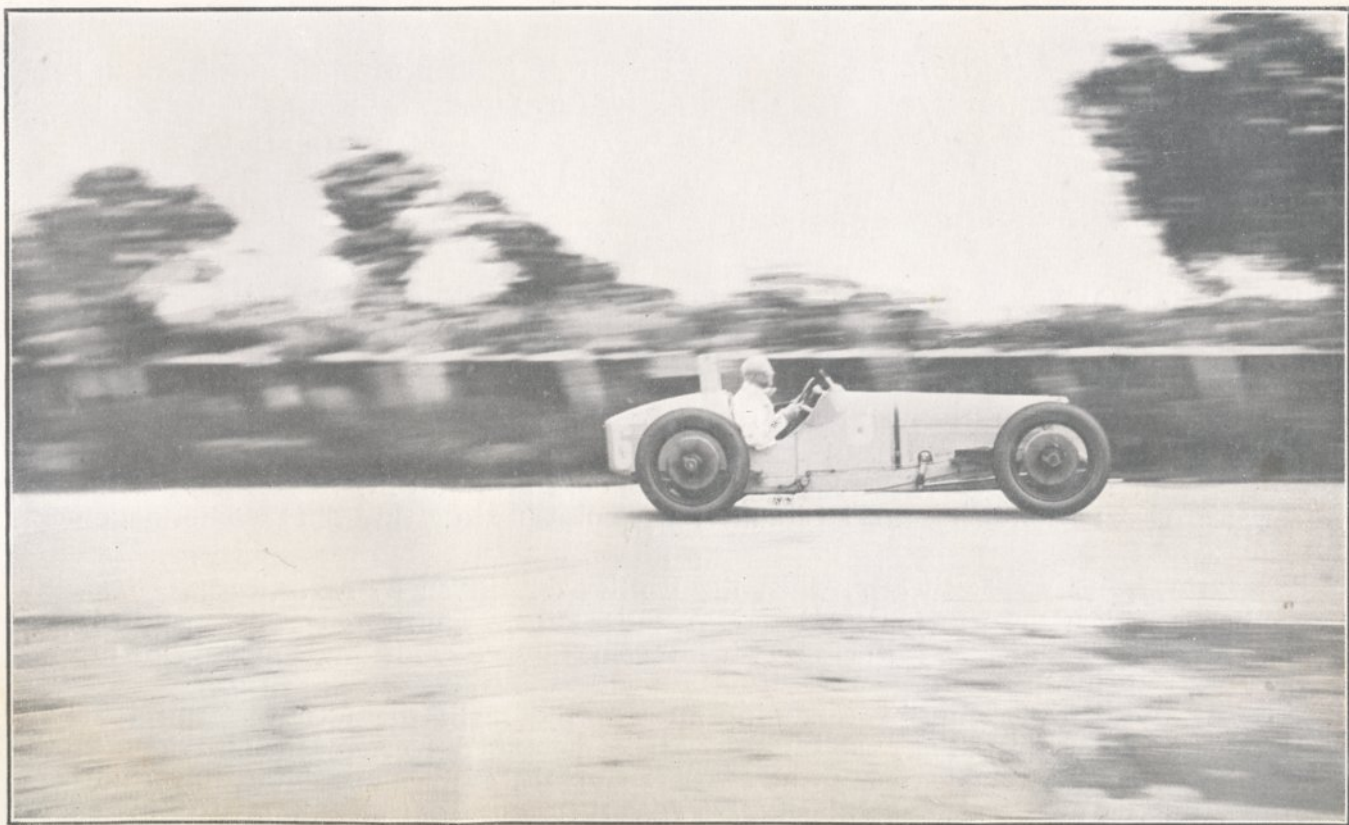
At the end of the Race our drivers found that no sign of wear appeared on the track, contrary to that which they had so many times before had to complain of in other competitions.

On the other hand, in spite of the exceptional tenacity, we have established with great pleasure that the wear on tyres was slight.

We are glad to be able to write you our heartiest congratulations on the model surface work which you have produced at Montlhéry and which we hope to see used on a large scale for the safety and comfort of users of the road.

Yours etc.,

(Signed) DELAGE.



"At speed" in the 1925 Grand Prix.

Mr. F. C. Clement, the Racing Manager of Bentley Motors Ltd., gives us the following opinion of the Track after winning with Mr. George Duller, the Twenty-Four Hour Grand Prix de Paris on August 15th, 1927, when he covered 1,257½ miles at an average speed of 52.4 m.p.h. This race was also run in pouring rain and, although the track had received two years' wear since Major Segrave's experience in 1925, the non-slippery COLAS surface was unimpaired.

Our ref. FCC/AFW.

Corner of Oxgate Lane & Edgware Road,
Cricklewood, London, N.W.2.

2nd September, 1927.

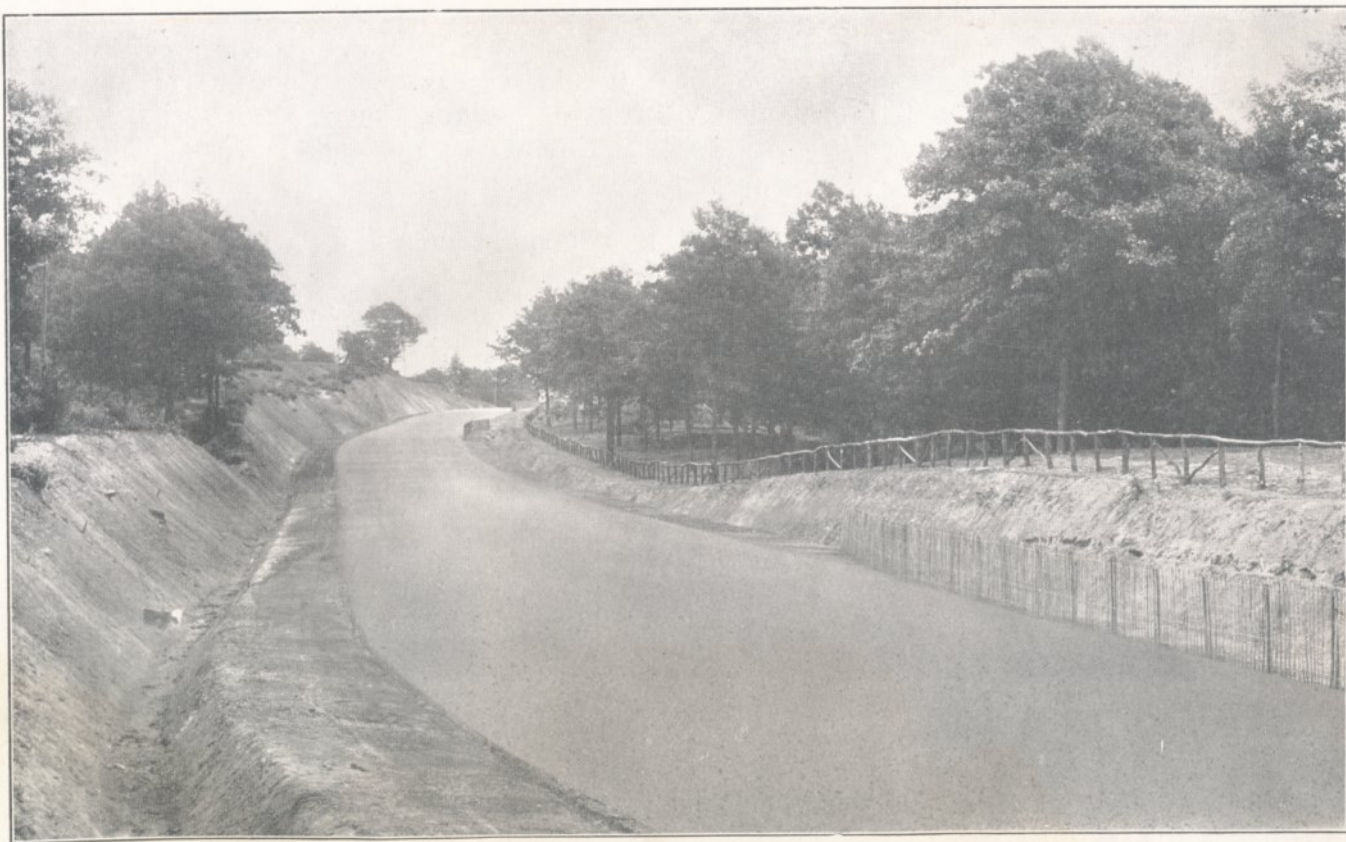
MESSRS. ASPHALT COLD MIX LTD.,
38-39 Parliament Street, S.W.1.

Dear Sirs,

In response to your request that I should give you my impressions of the surface of the Monthéry Road Circuit, I have pleasure in giving you the information you require.

In our recent success, when the Bentley car driven by Mr. George Duller and myself won the 24 Hours' Grand Prix de Paris, we covered between us 161 laps of this circuit, so I can speak with some authority of the condition of the surface.

As you probably know, during most of the night the race was run in a torrent of rain, and if the road surface had not possessed exceptional non-skid properties, we should not have been able to keep up the average speed we did. With the exception of the corners, which were constructed of concrete.....the whole of the road surface was in excellent condition, and it was possible to drive as fast when the road was practically under water as it was when it was dry.



GRAND PRIX, (Circuit de Linas-Montlhéry).

Picture showing the perfect state, and, in fact, improved state of this track after the race. The hill shown in the picture is a 12% incline, and the remarkable results obtained from the COLAS grouted road are clearly visible.

As our speed on parts of the circuit was over 100 m.p.h. it speaks extremely well for the non-skidding properties of the road surface.

The tyres stood the test extremely well, the surface of the road apparently causing no extra wear on the treads.

After the race the track was in as good a condition as it was at the start, and there was an entire absence of loose stones.

As a proof of this, I may mention that we dispensed with our head lamp guards which have usually been necessary on other road circuits on which I have driven.

I made enquiries as to the method by which this track was constructed and learnt that it was made by the Société Générale d'Entreprises of 56, Ru du Faubourg, St. Honore, Paris, who are the French Licensees of the Colas method which originated in this country.

I was pleased to learn that the Colas grouted road similar to the Montlhéry track has been used extensively in England.

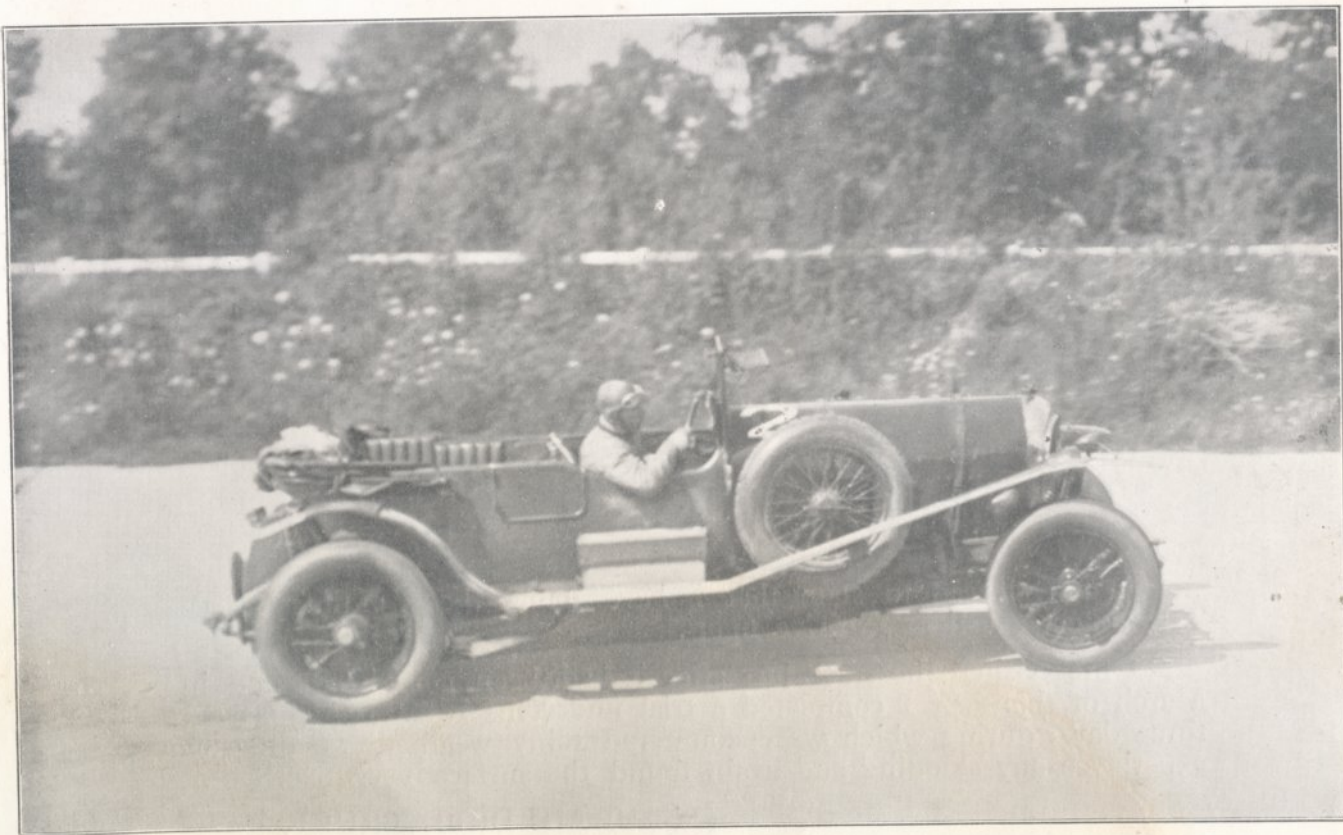
In view of the dangerously skiddy new roads one finds on some of the new By-Passes, I would like to see the Colas method employed more extensively in this country.

You have my permission to make any use you may wish of this letter.

Yours faithfully,

(Signed) FRANCIS C. CLEMENT,

Racing Manager.



The winning Bentley "at speed" on the Linas-Monthéry Track, 1927



The Hon. Mrs. Victor Bruce, whose exploits on her A.C. car are so well known, has successfully undertaken several high speed performances at Linas-Monthéry and her opinion of the track is as follows :—

“I am pleased to state that I have found the Monthéry Race Track most excellent to drive upon.

I first visited the track just after it had been completed, and in March of this year I completed a trial under the R.A.C. which lasted three days, during which we encountered rainy weather. I did not experience any skidding and again found the surface very excellent.”

(Signed) MILDRED BRUCE.

October 4th, 1927.

WHAT has COLAS done to assist in the success of this great Track?

IT has enabled the construction of the Track to be carried out under weather conditions that would have rendered work with other materials impossible.

IT has enabled the work to have been carried out in a shorter time and at a lower cost than would have otherwise been the case.

IT has provided a surface of great durability, requiring the minimum of maintenance.

IT has provided an ideal surface for motor racing.

COLAS is pure bitumen in an ideal form (emulsified); it is applied cold direct from the drums or tank wagon, no special equipment being necessary. It does not "pick up" during, or after application, and it cannot bleed in hot weather or crack during frost.

Although COLAS was only introduced a few years ago it has already established itself in Europe and Overseas as a means of providing better, cheaper and safer roads.

Full particulars will be sent on application.



Great Britain:

COLAS PRODUCTS LTD.

38-39 Parliament Street, Westminster,
London, S W.1.

Telephone No.:

Victoria 4991 (5 Lines).

Foreign Rights:

ASPHALT COLD MIX LTD.

Telegrams:

Ascolmix, Parl, London.

Associated Companies throughout the World.