Scientific American

A NEW AUTOMOBILE BACE TRACK.

The oval race track shown in the large illustration on this page has i st been completed at Weybridge, England, and opened for automobile and aeronautical tests. This is the first race track especially constructed for automobile racing anywhere in the world. It was built by the Brooklands Automobile Racing Club at a total cost of about \$500,000. The distance around the track is 3¼ miles. The track is constructed of concrete, and so banked at the turns as to be perfectly safe for a car traveling at a speed of 90 miles an hour.

£1 is charged non-subscribers for the privilege of weighing and testing a car.

The opening of this track is an important event in the aeronautical world also, as a cash prize of \$12,500 has been offered for the first heavier-than-air fiying machine to circle it at a speed of not less than 10 miles an hour and at a height of 40 or 50 feet above it.

The Use of a Double Bath in Electro-Gilding.

Almost any solution which contains gold in any great proportion may be used in electro-plating; but to

be dissolved off; and although this quantity is but small for each object plated, every time a new article is put into the bath, some of its outer surface is dissolved; so that at last the solution contains considerable other material than gold.

But while every electro-plater knows the evil influence of copper or silver on the gold coating, and endeavors to get as pure gold as possible to dissolve, so as to be assured of the color, few are careful to have the outer surface of the plated object composed of gold that is without any admixture of the baser metal.





The First Racing Car on the New Track, Making Nearly 100 Miles an Hour.

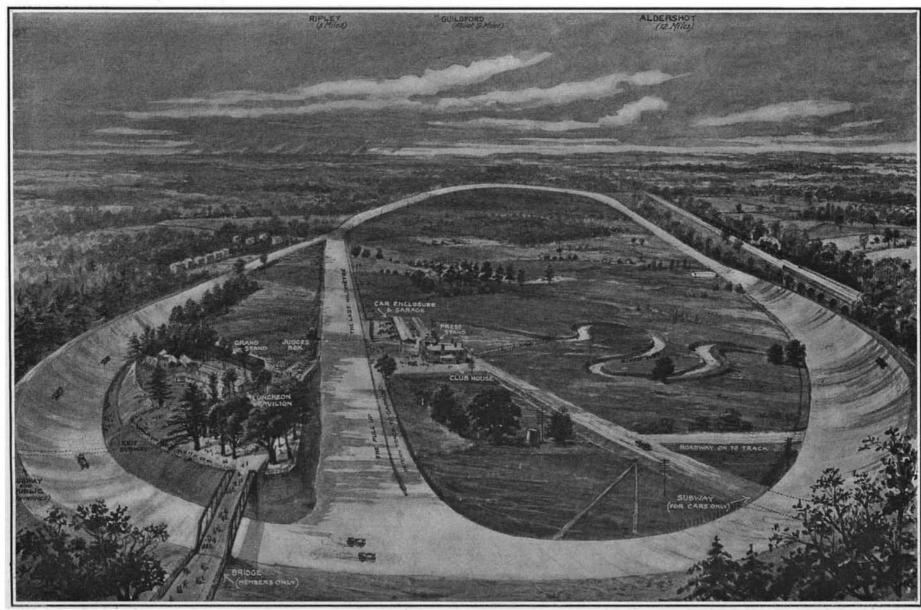
The Opening of the New Weybridge Automobile Racing Track.

In the construction of this motor race course, no less than 350,000 cubic yards of earth had to be removed or shifted, and 35,000 cubic yards of concrete had to be laid. The width of the track is 90 feet. The track is open for the testing of all cars which do not exceed a weight of 2,700 pounds. Such cars can be tested, upon days when there is no special race meet, at their maximum speed for a distance not to exceed 5 miles. No automobile is allowed to stop upon the track. In the event of a breakdown, the machine must be run to one of the refuges provided at different points along the track, where repairs or adjustments can be made. All cars must enter the track by passing through the weighing court, where their weight is taken. A fee of

get the best color effect requires experience and knowledge. Even the most intelligent workman often has, despite all his care, trouble with his bath. Getting a coating is easy enough; but the color is the thing.

One of the most frequent causes of trouble in gilding is, according to a writer in the Deutsche Metall Industrie Zeitung, the employment of only one bath. Gold being so dear, naturally must be used with care; but exactly for this reason is it better to have two baths, because they give a better result than only one.

The principal constituents of a gold bath are gold and a solution of potassium cyanide. If copper, brass, or German silver (which the Germans call "new silver") is introduced therein to be plated, some of them will Such a result can be attained only by first employing an ordinary bath, which, as it dissolves some of the baser metal from the objects to be plated and redeposits a part thereof with the gold, does not deliver a perfectly pure gold coating. If, however, the articles, after having been plated with an alloy containing an infinitesimal quantity of copper or silver, be then placed in a second bath containing nothing but pure gold, this second solution will be able to dissolve little or none of the copper or silver from the surface of the half-plated article; it will remain much purer than the first, and the coat which it gives will consist of gold so pure that it may be said to be practically free from alloy.



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