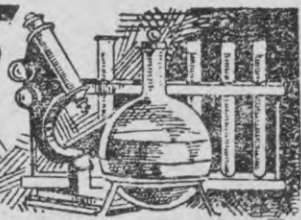


SCIENCE EXPLAINS

By "Atom"



IN the modern scientific world, so much depends on the scientist and the engineer that it may be interesting to summarise a few inventions and give a list of those men who were earliest in the field with their patents.

The Automobile.

It is easy to appreciate that there was no really first inventor of the motor-car. It was evolved over a period of time and as a result of many patents. Numerous inventors worked in this



field—from the application of steam power to the modern power unit as it is now known.

Isaac de Rivaz, a Swiss, patented in France in 1807 a gas driven car, followed in 1860 by Lenoir (France). Siegfried Marcus in 1875 built a gas driven car which is in the Technical Museum at Vienna, unless it has since been removed by the Nazis or destroyed by Allied bombing. The police prohibited its use on the road owing to the noise it created.

Otto, Germany, made a great advance with his invention in 1876 of the Otto or four-stroke cycle of operation for the internal combustion engine.

Between 1883 and 1886, Daimler and Benz (Germany) independently developed cars on which modern vehicles are the much improved versions.

George Selden, America, obtained a patent in 1879 for which huge royalties were paid, until Henry Ford successfully defended

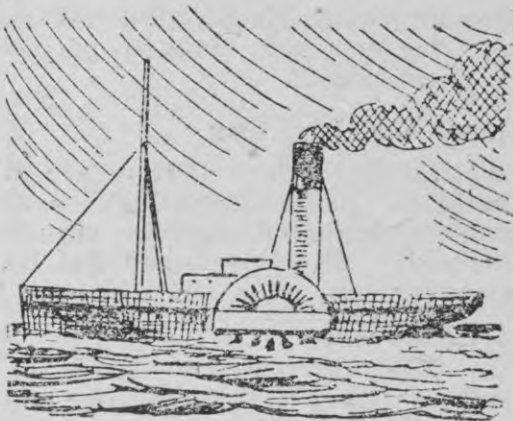
prosecution for the infringement of this patent right.

Four-wheel brakes are a British invention, patented in 1904 and used on Argyll cars in 1910. Knee action springing came from Dubonnet, France, about 1932, although Lancia (Italy) had used less effective principles 10 years earlier.

The straight 8-cylinder is attributed to Isotta-Fraschini, Italy, while the V type engine, which made its appearance in 1913, is credited to De Dion and Bouton, both of France. The Diesel engine derives its name from its German inventor Rudolf Diesel, who developed this type of engine in 1893.

The Steamboat.

William Symington, Britain, operated a paddle steamboat in 1787, while his «Charlotte Dundas,» in 1802, was a notable



success. Robert Fulton, America, sailed his «Clermont» on the Hudson River in 1807.

Neon Signs.

These were invented by Georges Claude, a French physicist and engineer.