THE IRON STEED

A ride through 130 years on Gottlieb Daimler's progeny.

** 1897 envelope printed to private order. Label on reverse advertising motor-cycles at Royal Agricultural Hall, now Business Design Centre!

This exhibit shows the evolution of the motor-cycle from primitive beginnings to today's ultra sophistication. It traces its development and creation of an industry, embracing its commercial use, including postal services throughout the world, its versatility for military and police purposes, its social and sporting application and the consequent need for safety and environmental protection.

Thematic text — Philatelic test

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PHILATELIC TREATMENT – Items are marked referring to their philatelic status and importance based on records, or alternatively on own experience or knowledge, with …

***…an item of "world status", or an item regarded as a top rarity. **…"high importance", an item regarded as a rarity. *…"important", an item regarded as a rarity.

The purpose is to make it easy within the exhibit to "identify" the most significant items from a philatelic/postal history point of view.

1. GENESIS OF THE EINSPUR

1.1 Why The Motor-Cycle?

Personal transport on land relied on the horse and wheel until the bicycle and engine appeared. Experiments with steam driven two and three wheelers were unsuccessful, but the coming together of the petrol driven engine, chain and wheel was the catalyst for Daimler's success with his internal combustion engine.

** Sheet of 1904 1 anna dull red with printer's accounting mark top left.

* Munich local post postal stationery card.

Dutch local town post.

Design error – pedals missing.

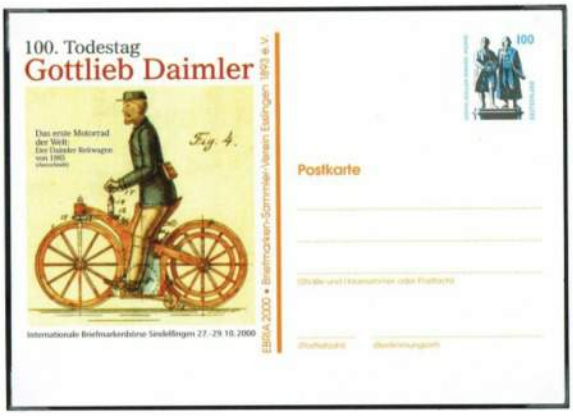
Land transport for centuries had depended on the horse and some form of carriage, but this only provided great personal freedom for a few, not everyone. The advent of the bicycle in the 19th Century would change all that.

* Pin wheel cancel applied at Roanoke, Indiana, 24 Oct 1884.

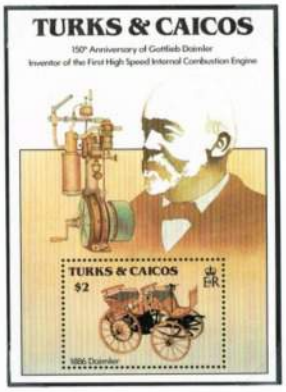
* 'DT' perfin = J.D.Theile, motor-cycle chain manufacturer.

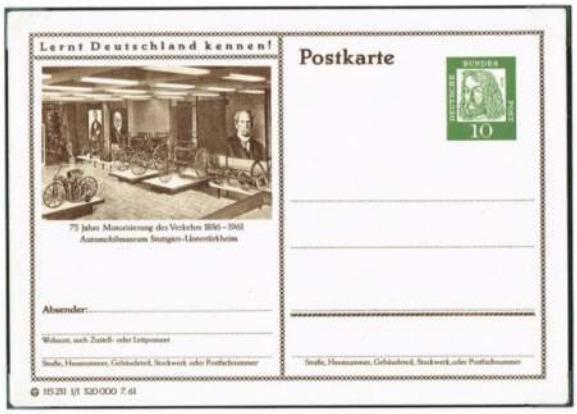
Bicycles seemed ideal to drive mechanically. The Michaux brothers' steam driven bicycle failed as the 1870 Franco-Prussian War intervened, but after the invention of a 4-stroke engine by Otto, Daimler's employer, experiments continued. They both felt such an engine could be linked to the chain and wheel.

Daimler's internal combustion engine was ready by 1885 to power a vehicle. His choice to provide personal freedom for everyone was two wheels. Inefficient steam powered tricycles were doomed.



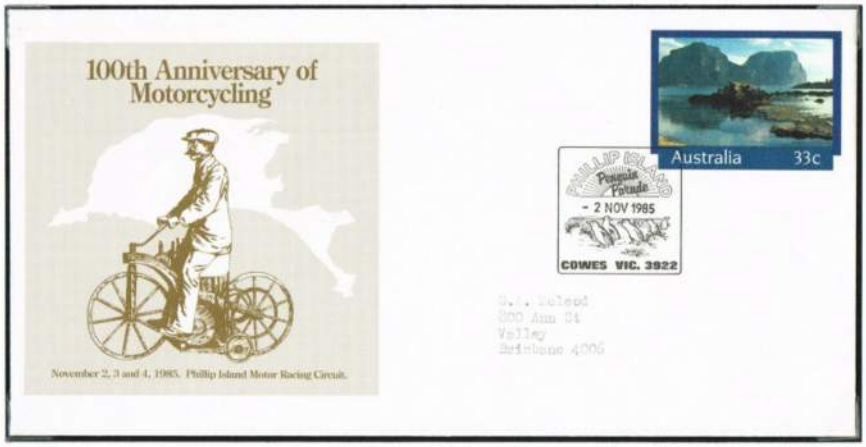
By 1885 Daimler with his assistant, Maybach, perfected a high speed petrol driven internal combustion engine which could fit a personal vehicle anyone could use without physical effort. He registered the patent for a two wheeled vehicle showing its technical specifications.





Daimler considered a four wheeled vehicle or boat for his engine, but chose two wheels. The Einspur, the first motor-cycle, was born. On 15 November 1885 it was ridden 15 kilometres by his son. This initial journey by any petrol driven vehicle was not incident free, the saddle catching fire! The Einspur was ironically destroyed by fire in 1903. The German Automobile Museum displays a replica. The Einspur spelt the end of later steam powered tricycles.

Daimler's move to cars was inevitable using his petrol driven engine in the automobile, invented by Carl Benz, his compatriot. His engine was the direct ancestor of practically all modern car engines and brought him lasting fame.



Daimler realised the Einspur had limitations. He also kept a watchful eye on the development of a self-propelled vehicle by Carl Benz.

** 'Starting handle' flaw at left of Daimler's ear.

After the invention of the automobile by Benz in 1886, Daimler moved to making four wheeled vehicles knowing his own engine was better than Benz's and left it to others to perfect his two wheeled invention.

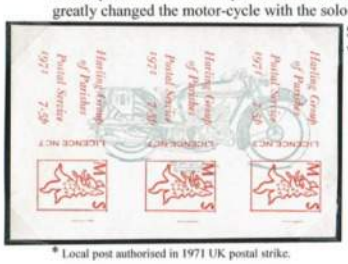
* Parcel advice 18 Jun 1939 of Daimler-Puch, Graz, Austria, (parcel card label & Daimler-Puch cachet) to customer who paid 18.94 marks repairs and 2 marks postal charge, cash on delivery.

* Parcel card label from Daimler-Benz company.

Daimler's company grew in competition with Benz and later Mercedes, merging with Mercedes-Benz in 1926 to become Daimler-Benz. Sadly his name is nowadays borne by just one motor-cycle factory, Daimler-Puch. Meanwhile, the first machine called a motor-cycle ('motorrader') was made by Hildebrand and Wolfmuller in 1894 – development had begun.

Development from the Einspur to the modern motor-cycle and its offspring, three wheelers, sidecars, quads, mopeds and scooters, has greatly changed the motor-cycle with the solo machine becoming a real thoroughbred, and has led to developments in other directions.

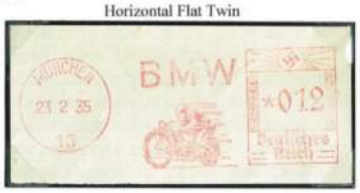
Postage paid indicium.



* Local post authorised in 1971 UK postal strike.

Straight
V Twin

Horizontal Flat Twin



Air Cooled Single Cylinder

Various engine configurations have been used to supply increasing power to the motor-cycle.

* BLP letter sold at a discount with the stamp overprinted 'B.L.P.' to stop re-use. Part of the proceeds supported the Italian war wounded.

* Signed artist's proof.

Issued stamp

Directly driven front and rear wheels have continued, but radial engines are history. Friction drive on bicycle wheels has had some success. Velo Solex has always used friction drive engines on bicycles. Cyclomotors driving a bicycle's front wheel are economical for postal use. Pedal power assisted direct drive especially uphill and was retained by mopeds (see Chapter 2.2.2).

Belt, shaft and chain drive have been employed exclusively to the rear wheel. Belt drive was adopted in the 1890s and almost disappeared in the 1920s. Shaft drive appeared in 1911and continues in use today. Chain drive was adopted early also, but did not predominate until later.

Design error – belt drive not fitted to rear wheel.

** Advertising postal stationery sold for 30pfg., also printed in purple.

Belt drive was inefficient and often pedal assisted. Only Harley-Davidson retained it following WW II as a notched belt drive option. It was inefficient uphill and in rainy conditions, unlike the DKW dealer's advertisement. So the shaft and the chain drive replaced it.

* Machine cancel for chain manufacturer.

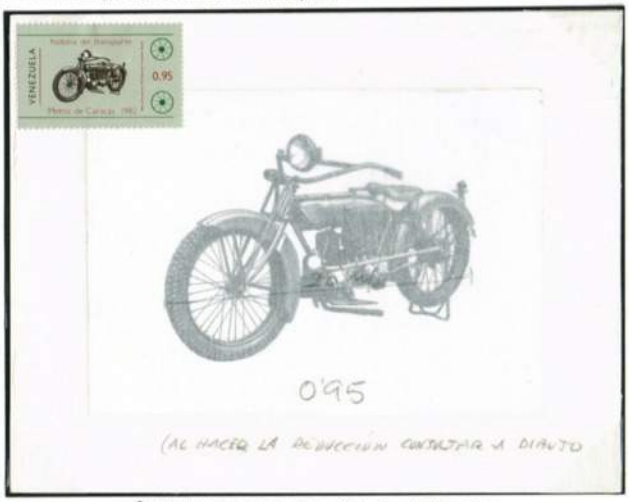
*** One of only three metermarks known inscribed '1926'. Metermark used again in 1928 inscribed '1928'.

Parcel advice 7 Sep 1970 of Renold, Stockholm, to customer who paid for parcel 8 Sep 1970 in Goteborg.

Shaft drive gives smooth transmission and was used widely by BMW and Moto Guzzi. Chain drive was more efficient and superseded the belt. Chain manufacturers praised their product's racing successes. Chains became the most reliable form of transmission and made Renold famous.

Substantial advances have been made with lighting and electrics with batteries and electrical ignition becoming everyday features of motor-cycles.

The Einspur along with its successors had no lights nor any electrical ignition. Lighting for night riding was first provided in the early 20th Century with large acetylene lamps.



* Original artwork – acrylic on artpaper with overlay and with issued stamp.

* French postal cheque envelope. Usage with advertisements ceased in the 1930s due to the financial depression.

Plate coil number 1.

* Berlin airlift 2 pfg. surcharge.

Headlights today provide good night vision and improved electrics give the police good warning systems. Battery power became available from Bosch in 1903 eventually replacing acetylene lighting and bringing in the magneto. Specialists began to offer electrical components as machines became more sophisticated.

The Einspur had a wooden frame and wheels, but no brakes, tyres, or suspension, yet overcoming bumpy roads was essential.

Dutch local town post.

Certificate of posting.

Wooden frames and wheels were initially replaced by bicycle frames and wheels, but had limitations with size and weight. Purpose built metal frames housing heavier and more powerful engines took over. Today's twin beamed frames originated from Bimota in the 1980s.

* 'LRC' perfin = Leicester Rubber Co. inverted on 1d stamp underpaid on cover sent 11 Nov 1916 to Sweden, opened by Censor no. 304 as subject to wartime restrictions, charged 24 ore postage due ('T' handstamp), collected by postman per 'Losen', 'stamp fee', label.

Rim brakes on the front wheel were inherited from the bicycle. Rear wheel brakes were virtually unknown until 1915. Hub brakes with brake shoes made by firms such as Feridax became common place until overtaken by hydraulic disc brakes which prevail today on both front and rear wheels. From 1885 tyres were solid, but by 1900 pneumatic tyres began to predominate.

Improvements to tyres have made motor-cycles comfortable to ride. Wheels are now streamlined and suspension greatly improved.

** French Forces postal stationery card providing free postage on 18 Jan 1918 from soldier in Military Transport Section 1080.

*** Booklet with blue cover also known printed in red.

Pneumatic tyres competed with solid tyres until the 1930s, but better tread patterns emerged and wide width tyres are the norm today. Bicycle style wheels with many spokes continued to be used until well into the 20th Century.

Hub brakes meant fewer spokes on wheels, but disc brakes now need only three spokes per wheel. Suspension was a problem, but after WW II telescopic front and rear forks appeared that have improved through Trelleborg's and Girling's moto-cross experience.

The two wheeled Einspur has bred strange and useful three and four wheelers. Its direct offspring, mopeds and scooters, have a distinctive feminine appeal.

The sidecar was patented in 1903 with a third wheel set alongside the motor-cycle providing a 'liberty' sociable attachment for the carriage of passengers.

Initially a motorised tricycle was tried with a third single wheel at the rear or front. A single rear wheel allowed passengers to be seated in a forecar in front of the driver. By WW I motorised tricycles had almost disappeared, but they would return later.

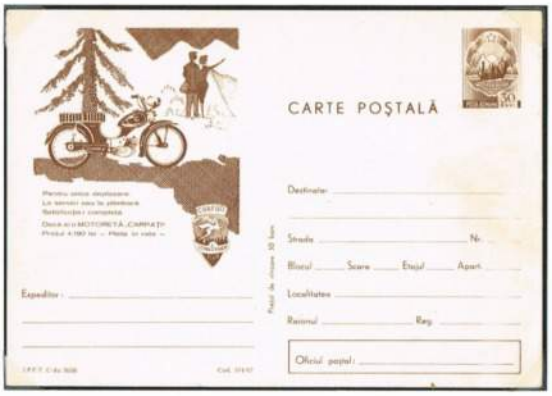
Epelsa machine label

* 1955 Romanian postal stationery card.

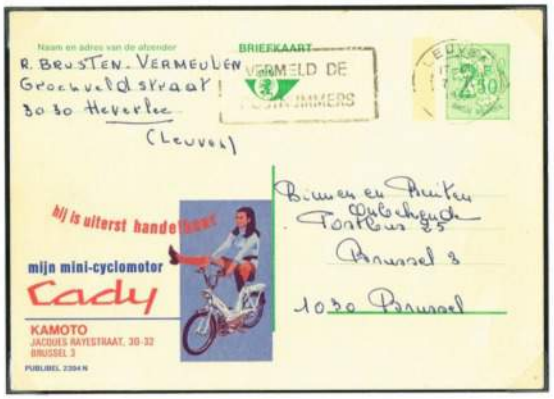
As sidecars were first made of osier, the term 'pannier' was used. They became family transport with comfort provided for the passenger.

A sidecar was a popular vehicle on which the Partisans could celebrate. Its popularity eventually gave its name to a cocktail. Further development led to the snowmobile and the return in the 1970s of motorised tricycles together with 'quad' bikes, four wheeled motor-cycles, vehicles ideally suited for use on rough terrain such as shepherding.

As manufacturing restarted after WW II cheap and clean personal transport for lady riders was in demand. So mopeds and scooters extended the breed.



The moped derives from the pre WW II auto-cycle. 'Moped' comes from the Swedish, MOtor and PEDalen, a pedal assisted lightweight motor-cycle. The step through design proved popular and mopeds became ideal leisure vehicles. They enjoyed so much popularity in France that the Mobylette achieved iconic status there.



Mopeds are clean and lighter than motor-cycles, so are suitable for ladies to ride, but not like this! Nor are they suitable for polo! They are though well suited for Third World usage as they are comparatively cheap and economical to run. So they have become one of the best vehicles for use in the Third World.

The scooter design appeared in the early days of motor-cycling, though the modern version was conceived in Italy immediately after WW II as a means of getting around a large aircraft factory speedily. Subsequently, scooters were developed commercially aimed very much at the fair sex.

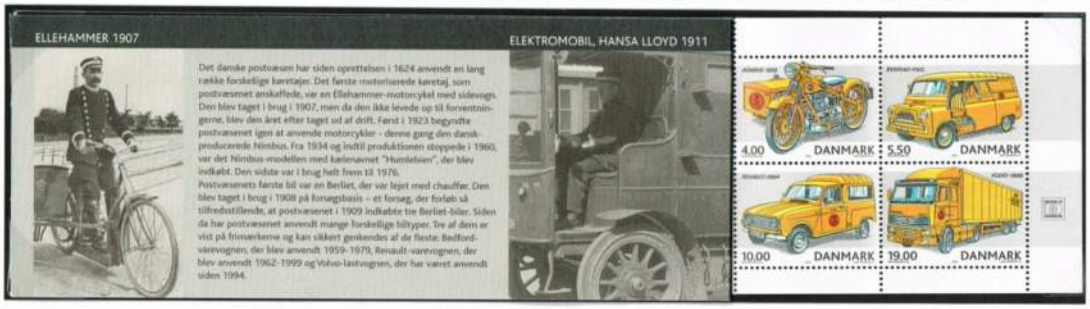
The scooter design suitable for ladies featured in the 1920s, but it did not catch on. It re-appeared in 1946 when the Vespa ('wasp') was patented to be followed later in 1946 by its great rival, Lambretta. Other manufacturers could not match the classic Italian lines.

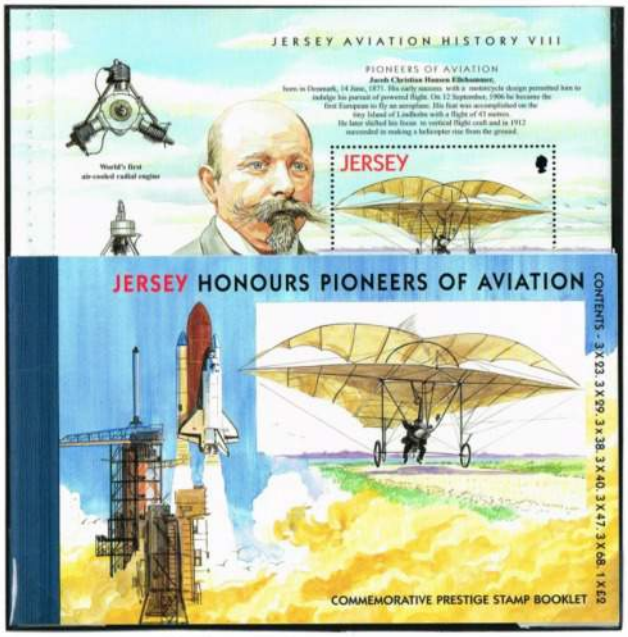
** Portuguese postal stationery envelope, 5,000 only printed, sold for 20c. for public use only to all Portuguese Territories plus Brazil and Spain.

** Israeli postal stationery booklet containing 10 x 60 pruiots pre-paid postal stationery cards with protective interleaves. Interleaf shown advertises 'Lambretta, your favourite and the world's best scooter'.

Parilla and Puch scooters, although suitable for lady riders, were nonetheless also poor matches for their Italian rivals. Different versions of the scooter have appeared like compact scooters and modern versions have become most stylish.

Whilst Daimler had moved to cars, some engineers developed Daimler based engines in other directions.





In 1904-1909 Ellerhammer in Denmark and in 1901-1906 Ader in France made motor-cycles with Daimler based engines. They both believed that their engines could also power an aeroplane. Ader failed several times to fly a primitive aeroplane using a motor-cycle engine, but Ellerhammer became the first European to fly an aeroplane with a similar engine in 1906.

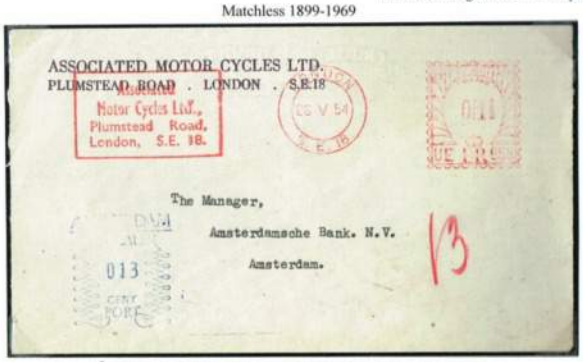
Overprinted for the first Zeppelin flight in Finland.

Maybach, Daimler's assistant (see Chapter 1.1), would go on to develop his engines for both cars and Zeppelin airships. As will be seen in Chapter 3 the motor-cycle industry has coped with all these diverse developments.

3. AN INDUSTRY IS CREATED

Making the Iron Steed has grown into a universal industry of manufacturers, accessories, dealers and shows. Manufacturing started in Europe, soon spreading to the USA and creating legendary marques along the way.

Matchless 1899-1969



* Cover sent by Associated Motor-Cycles 26 May 1954 to Netherlands, charged 13 cents postage due per trial postage due machine cancel and '13' in red manuscript.

Motor-cycle factories were established in Europe in the late 1890s. Associated Motor Cycles made both Matchless and AJS machines. A Matchless is seen here in Gibraltar in WW II, but only AJS has survived until today being taken over in 1969 by Manganese Bronze, manufacturers of Norton.

Laurin & Klement 1899-1908

Laurin & Klement perfin.

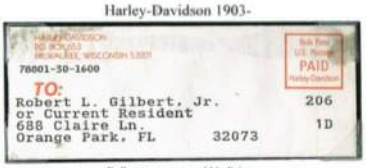
Inscribed '1898' in error.

Norton 1901-

Epelsa machine label inscribed 'Norton' in error. It is a Narcla.

Husqvarna 1903-

Harley-Davidson 1903-



Bulk rate postage paid indicium.

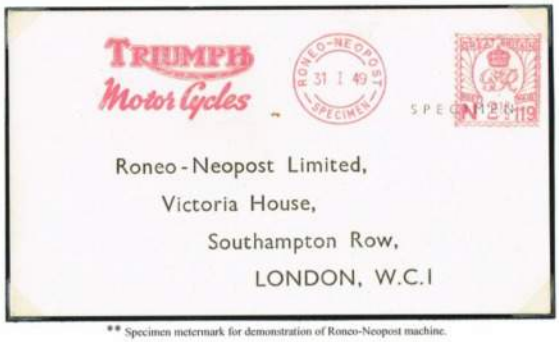
Aermacchi 1948-

NSU 1901-1958

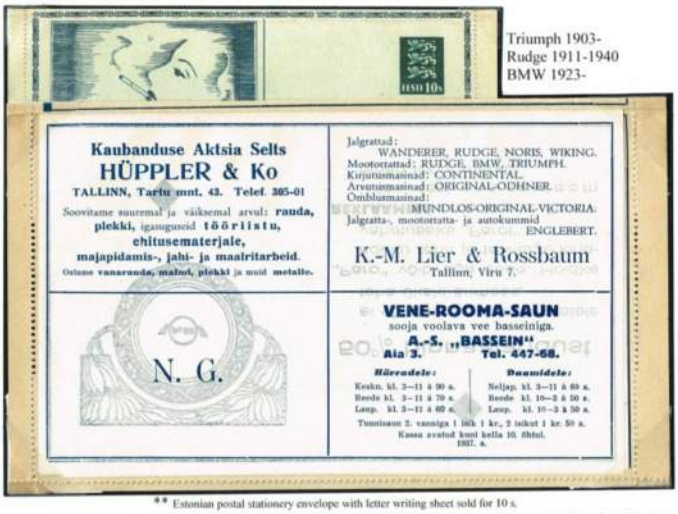
** Inside front cover of 10 pfg. German postal stationery envelope.

Laurin & Klement soon folded, but Norton survives. Husqvarna was named after its town of manufacture. It was not long before factories like Harley-Davidson sprang up in America. It extended its stable in 1960 by buying Aermacchi and is still going strong. NSU had Neckarsulm on its tank showing where it was made.

Some manufacturers have been confined to history, but others have survived to the present day.



** Specimen metermark for demonstration of Roneo-Neopost machine.



Triumph 1903-
Rudge 1911-1940
BMW 1923-

** Estonian postal stationery envelope with letter writing sheet sold for 10 s.

Rudge

BMW

Rudge sadly folded on the death of its proprietor, but Triumph and BMW have continued until today as leading manufacturers.

Velocette 1904-1970

Horex 1923-1959

* Machine cancel for motor-cycle manufacturer.

From the early days Velocette built large single cylinder machines. Horex was a leading German motor-cycle manufacturer for many years. Puma only survived for eight years in Argentina. All three firms succumbed to the Japanese onslaught in the 1960s and 1970s.

Puma 1954-
1962

** Argentinian postal stationery envelope sold for 5c, with additional 15c postage for late use.

Greeves 1952-

Greeves was one of the first manufacturers of motor-cycles that initially made only competition machines. It had great success in England in cross country events such as trials and moto-cross.

Armaments factories diversified into motor-cycles, but some famous marques became economic or political victims.

** Advertising postal stationery sold for 5 pfg.

Wanderer 1902-1929

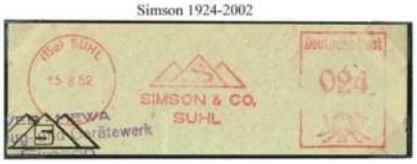
* BSA perfin

BSA 1906-1971

Jawa 1929-

BSW 1936-1945

Simson 1924-2002



'Jawa' comes from 'JAnecek', arms manufacturer, who acquired the design licence of 'WAnderer'. BSA and Simson made motor-cycles as well as guns, but this did not last. In 1936 Simson was re-named 'BSW' ('Berlin Suhler Waffen') when its Jewish owners fled Nazi persecution in Germany.

BAM 1933-1937

FN 1901-1957

In Belgium FN made several products as well as guns. In Germany FN had an assembly plant at Aachen and sales office in Berlin, but they were not able to send their own motor-cycles to Germany because the Nazis prohibited the importing of foreign motor-cycles, so 'BAM' ('Berlin-Aachen Motor Works') was used in place of 'FN' on the petrol tank. After WW II FN found motor-cycle production was unprofitable and finished making motor-cycles in 1957.

* Belgian postal cheque envelope.