1906.

ARGYLL MOTORS 1906 LIMITED

MADE IN THE WORLDS GREATEST ENGINEERING CENTRE

Argyll Motor Cars & Delivery Vans

Argyll Works, Alexandria near Glasgow.

AND AT BRIDGETON, GLASGOW.

Catalogue, 1906.

Telegraphic Addresses:
"AUTOCAR, GLASGOW."
"AUTOCAR, ALEXANDRIA."

Telephone Nos. 1 Alexandria (National).
3065 Bridgeton ,,
3066 ,, ,,
3067 ,, ,,

DIRECTORS.

WM. ALEXR. SMITH (Chairman).
A. W. STEVEN.
ANDERSON RODGER.
ALEC GOVAN (Managing Director).

BANKERS.

Bank of Scotland, Glasgow and London.

AUDITORS.

Thomson, Jackson, Courlay & Taylor, C.A.,
24 George Square, Glasgow.

SOLICITORS.

Mitchells, Johnston & Co.,
160 West George Street, Glasgow.

"Argyll"

MOTOR CARS

AND

MOTOR CARRIAGES

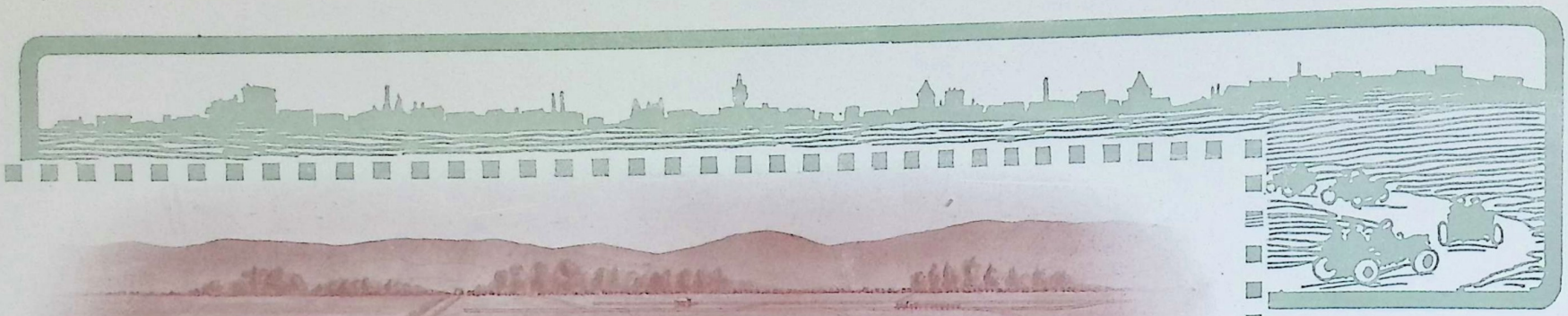
"ARGYLL MOTORS," Limited,

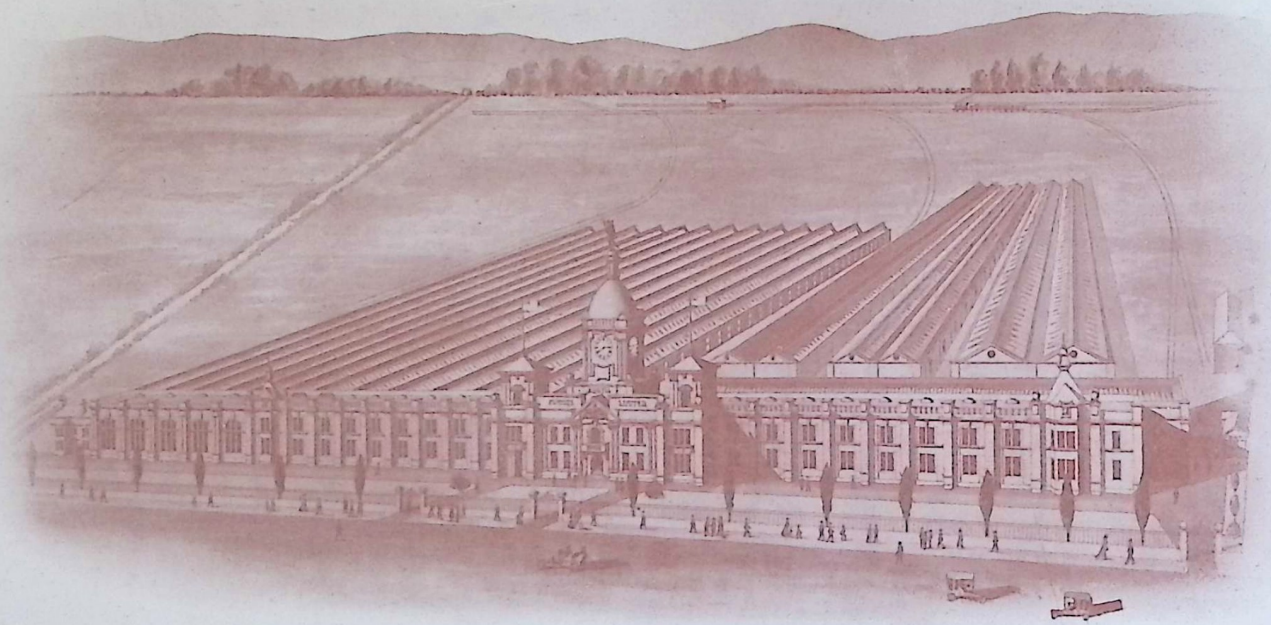
ARGYLL WORKS,

ALEXANDRIA, BY GLASGOW,

AND AT BRIDGETON, GLASGOW.

Scotch Fir.

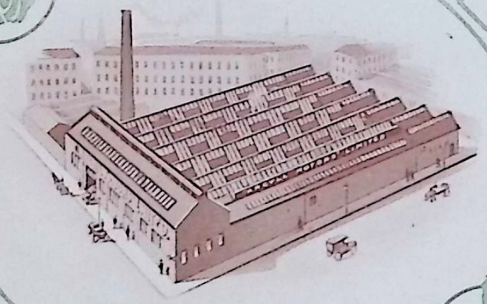




ARGYLL WORKS,
ALEXANDRIA.

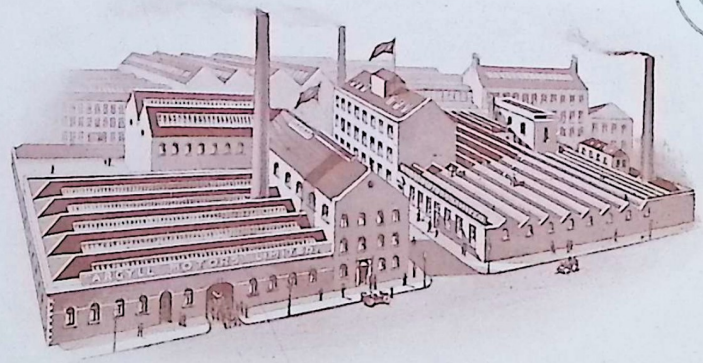
Area of Ground, 60 acres.
Area of Buildings, 15 acres.

Productive Capacity,
60 complete Cars per week.



Argyll Works Crownpoint
Glasgow.

New Argyll Works
Alexandria by Glasgow



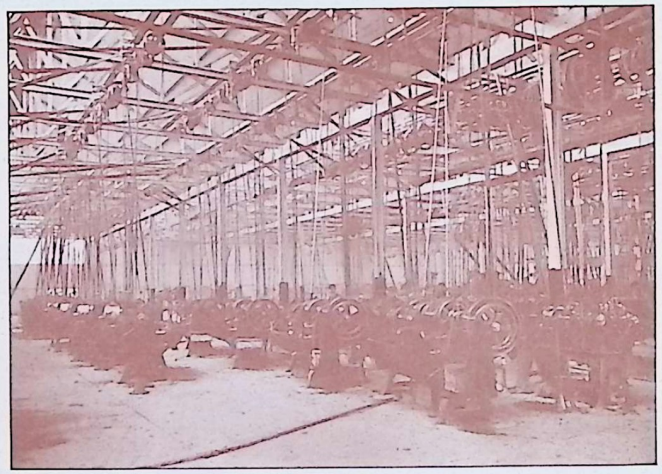
Argyll Works Bridgeton Glasgow

ADNAH ENGRAVING CO GLASGOW

INTRODUCTION.

THE history of the **"Argyll" car** has been one of uninterrupted success. From the first it appealed strongly to the public, and its makers have all along been confronted with the problem how to turn out **"Argyll" cars** in sufficient quantities to satisfy the rapidly growing demand for them. During season 1904-5 the difficulty has been greater than ever before, and the resources of the factories at Bridgeton have been more than taxed to the uttermost. In view of the ever-increasing popularity of the **"Argyll" car** and the impossibility of meeting the demand with the facilities at their disposal—large and well equipped as the Bridgeton factories are—and although both a night and a day shift have been working constantly throughout the season, the Directors, early this year, set about securing a site for new works sufficiently far from the city to ensure the advantages of a country location, and yet within the Glasgow area, so fitly called "The World's Greatest Engineering Centre."

Continuous Expansion.



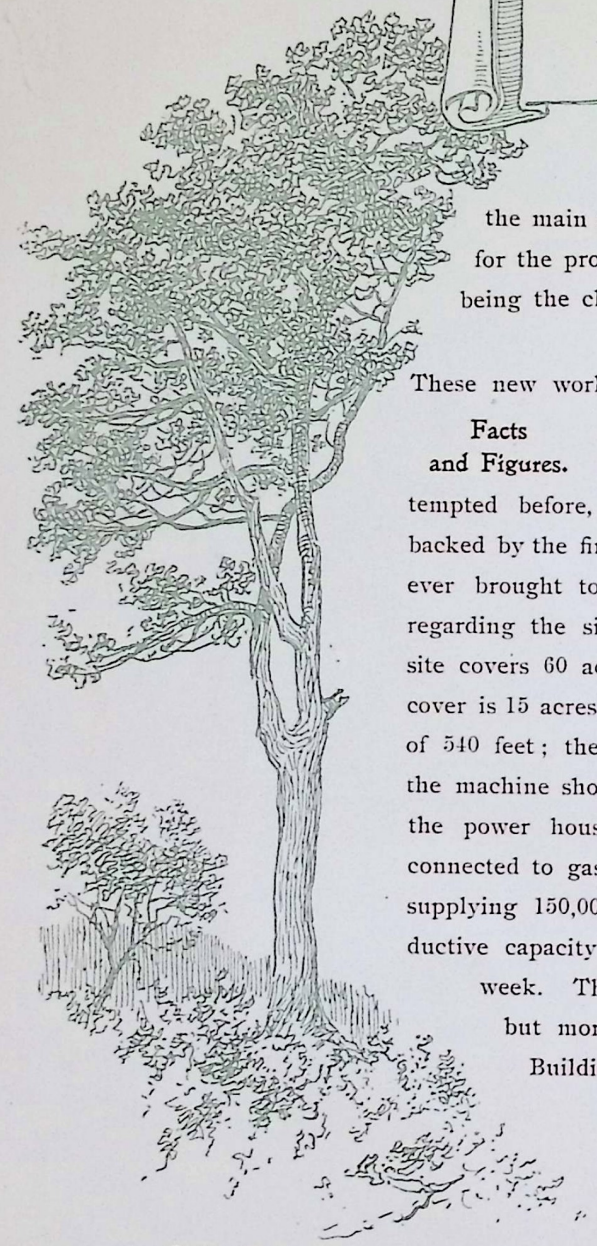
VIEW IN THE MACHINE SHOP AT ALEXANDRIA.

The new Argyll Works are therefore to be found in the Vale of Leven, in as picturesque a district as exists in all Scotland—within three-quarters of a mile of Loch Lomond, the Queen of Scottish Lakes, and about midway between Alexandria and Balloch Stations on the Dumbarton and Balloch Joint Railway. Situated as they are between the railway and

The New Works.

Banana Palm:
West Indies.

Introduction—Continued.

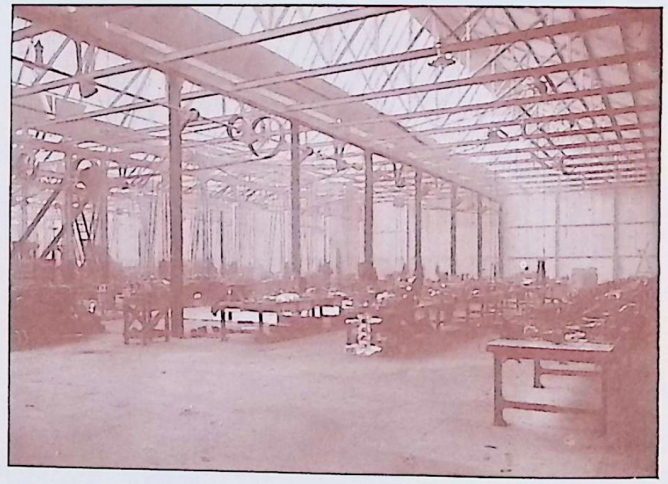


Oak: England.

the main road to Loch Lomond, there is no difficulty in communication by road or rail. The facilities for the proper testing of the cars are the best that could be desired, the main road passing the works being the classic route to the Perthshire Highlands—a favourite one with motorists.

Facts and Figures.

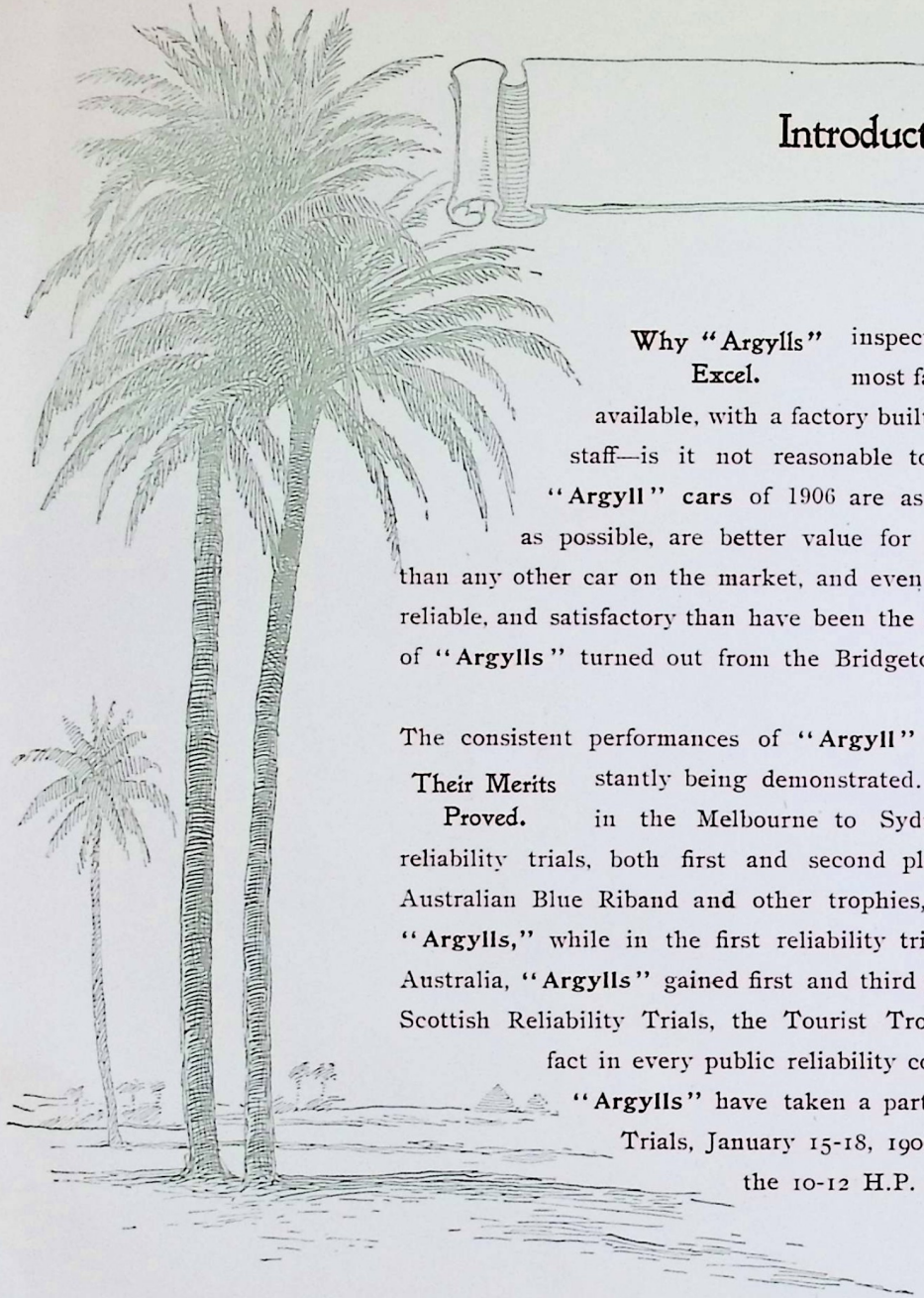
These new works have been designed and built for one purpose—the production of motor cars in larger numbers than has ever been attempted before, and as nearly perfect as human skill, backed by the finest and most modern plant and machinery ever brought together, can make them. A few figures regarding the size of the works may be of interest. The site covers 60 acres; the actual floor space already under cover is 15 acres; the administrative building has a frontage of 540 feet; the coach shop measures 300 feet × 100 feet; the machine shop is driven by three 100 H.P. gas engines; the power house contains seven direct-driven dynamos connected to gas engines, each of 100 H.P.—the gas plant supplying 150,000 cubic feet of gas per hour. The productive capacity of the factory is 60 complete cars per week. This enormous production is warranted by the general development of the use of motors, but more especially by the urgent demand for **"Argyll" cars.**



THE TOOL ROOM AT ALEXANDRIA.

Building as we do on the factory principle, with the close system of inspection, test, and re-

Introduction—Continued.

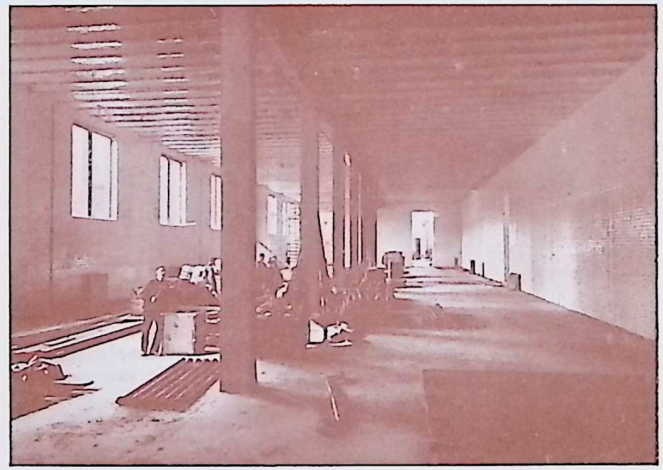


Why "Argylls" Excel.

inspection; aided as we are by being able to buy our supplies at the most favourable rates; our machinery run by the most skilled workmen available, with a factory built and equipped for one purpose, and controlled by an experienced staff—is it not reasonable to say that the **"Argyll" cars** of 1906 are as nearly perfect as possible, are better value for prices charged than any other car on the market, and even more efficient, reliable, and satisfactory than have been the many hundreds of **"Argylls"** turned out from the Bridgeton Factory?

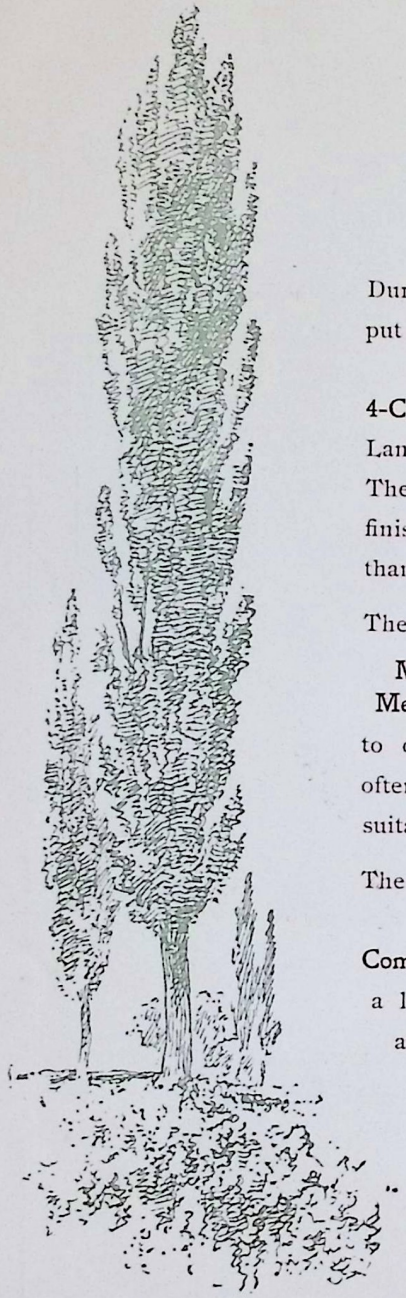
Their Merits Proved.

The consistent performances of **"Argyll" cars** are constantly being demonstrated. For instance, in the Melbourne to Sydney 700 miles reliability trials, both first and second places, with the Australian Blue Riband and other trophies, were won by **"Argylls,"** while in the first reliability trial in Victoria, Australia, **"Argylls"** gained first and third places. In the Scottish Reliability Trials, the Tourist Trophy Trials, in fact in every public reliability contest in which **"Argylls"** have taken a part, a non-stop run has been secured. In the Bombay Reliability Trials, January 15-18, 1906, two **"Argylls"** were entered, and both secured first place—the 10-12 H.P. in Class B, and the 16-20 H.P. in Class C.



THE STORES AT ALEXANDRIA PRIOR TO FITTING.

Palm Tree:
Egypt and India.



Poplar: France.

Introduction—Continued.

During the past season the demand for four-cylinder cars has developed considerably, and in response we have put out a new model 14-16 H.P. car, which is quickly becoming a firm favourite. The closed carriage is being more and more adopted, especially for use in winter, and we have therefore pleasure in directing attention to the **"Argyll"** Landaulets, Detachable Top Broughams, and Saloons. These covered cars are turned out in the highest style of finish, and for comfort, elegance, and usefulness, compare more than favourably with the best horse drawn vehicles procurable.

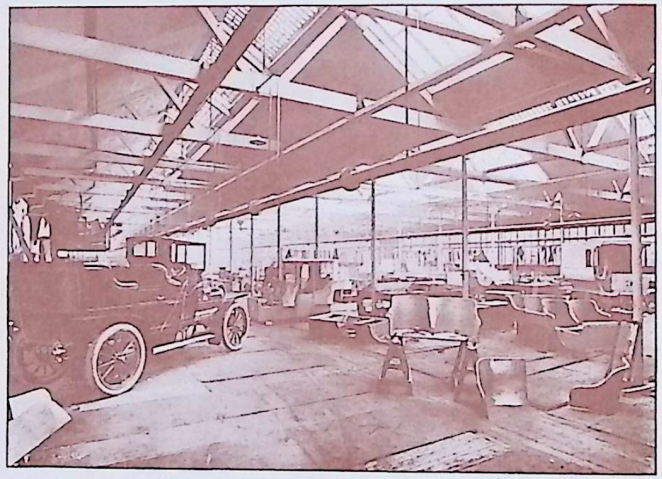
Our New 4-Cylinder Model.

The **"Argyll"** has ever been a favourite car with the medical profession, and during the past season we have supplied many Landaulets to city doctors, while the country practitioner has more often contented himself with our Touring Car with a suitable folding hood.

Motors for Medical Men.

The use of motor carriages by commercial travellers is, we find, steadily increasing, and we now turn out a special vehicle arranged to carry a large assortment of samples, and to afford comfortable and enclosed accommodation for the traveller.

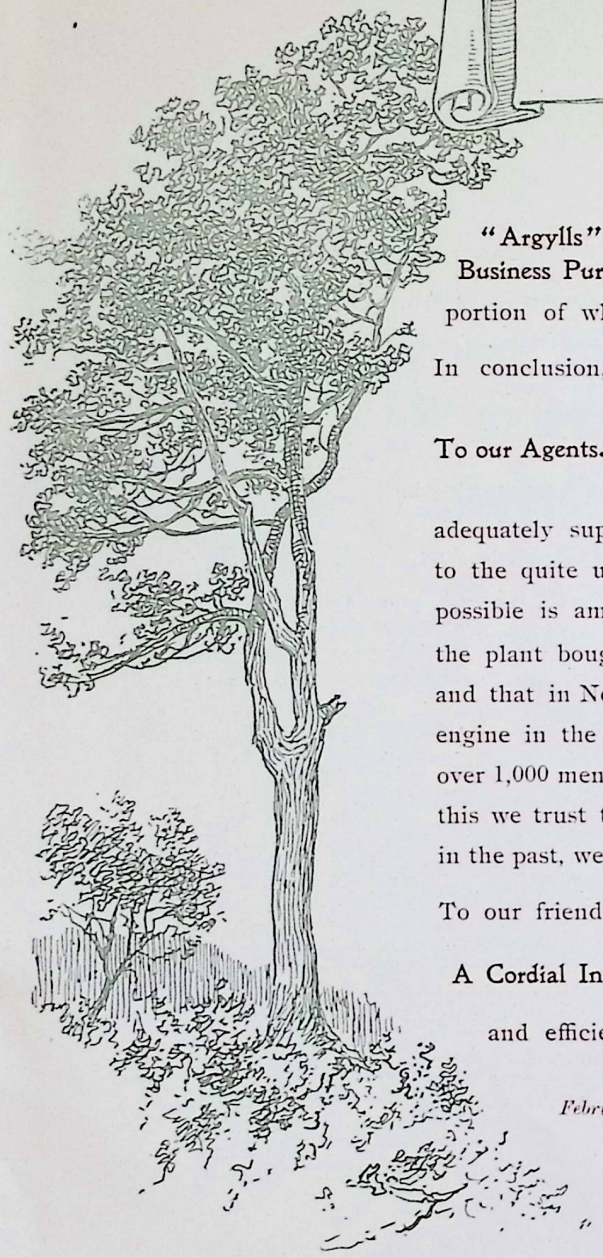
The Commercial's Car.



CROWNPOINT COACH-BUILDING SHOP.

The marked success of the lighter **"Argyll" cars** has led to a decided demand for vehicles having a greater carrying capacity than those listed previously; consequently we have designed and are now

Introduction—Continued.



"Argylls" for Business Purposes.

manufacturing a heavy type of chassis suitable for omnibus, lorry, and heavy van bodies. This has only been made possible by the opening of our new works, a portion of which has been permanently set aside to deal exclusively with commercial vehicles.

To our Agents.

In conclusion, we have again to thank our large clientèle for the hearty encouragement and kindly assistance so freely extended to us. To the large body of the trade who act as our agents we tender our warm appreciation for their efforts on our behalf. It is fitting that we should mention here how deeply we have felt during the past season our inability to adequately supply the demands for cars, and to some extent for replacements. This was entirely due to the quite unprecedented calls upon our resources. That we have set about curing this as quickly as possible is amply evidenced by noting that our complete new factory was planned, the ground secured, the plant bought, and the works started, between the Olympia Show in February, 1905, and that in November following. The first sod was cut on April 6th, and the first 100 H.P. engine in the machine shop started on June 29th. All through the summer an army of over 1,000 men have been at work on the buildings, the rate of erection being 40,000 bricks a day. In view of this we trust that while we have been found guilty of keeping our clients waiting the fulfilment of their orders in the past, we shall now be able to meet every call to be made upon us for at least some time to come.

And our Clients.

A Cordial Invitation.

To our friends both old and new we extend a hearty invitation to visit us at Alexandria. We can assert, without boasting, that the Argyll Works here are a record in every respect, built in record time for the production of cars holding the record for reliability and efficiency.

ARGYLL MOTORS, LIMITED.

February, 1906.

Oak: England.

Poplar: France.

A Few Argyll Successes.

In 1901.—Easy winner of the Scottish Automobile Club's (Eastern Section) Hill-climbing Competition, beating high powered cars costing much more money.

Driven from Glasgow to London in 21½ hours.

Awarded Diploma of Merit, Glasgow International Exhibition.

In the Reliability Trials, organised by the Automobile Club of Great Britain, held at the Glasgow Exhibition, the **"Argyll"** was the only car in its class, whether of British or Foreign manufacture, which did not lose a single mark for reliability. It also climbed all the hills on every route, including Whistlefield, with full complement of passengers. The distance was 535 miles. Not a single stop was recorded against the **"Argyll."**

In 1902.—Awarded Medal for Gearing, Liverpool Motor Exhibition.

In 1903.—The **"Argyll"** gained Non-stop Certificate in the Glasgow to London run, organised by the Scottish Automobile Club.

The **"Argyll"** won Scottish Hill-climbing Competition.

The **"Argyll"** was driven through the 1,000 Miles Reliability Competition, organised by the Automobile Club of Great Britain, without losing a single mark for reliability, making Non-stop runs every day. It also ran the total distance without adding water.

Awarded Automobile Club of Great Britain Medal for the Gearing (Govan Patent).

Medal awarded at Paris Exhibition.

Medal gained for speed at Phœnix Park Races.

Medal gained for speed at Southport Races.

In 1904.—Yorkshire Automobile Club Speed Trials.
10 H.P. **"Argyll."** Class III., 1st place.

Irish Automobile Club Hill-climbing Test, Dublin.
10-12 H.P. **"Argyll."** Class B, 1st place.
16-20 H.P. **"Argyll."** Class C, 1st place.

In 1904.—10-12 H.P. **"Argyll"** broke John o' Groats to Land's End Record by 3 hours 10 minutes.

12-14 H.P. 3-Cylinder **"Argyll"** broke John o' Groats to Land's End Record, then held by Mr. Cecil Edge, by 3 hours 20 minutes. Time—42 hours 5 minutes.

Scottish Automobile Club Reliability Trials, Glasgow to London. 10-12 H.P. **"Argyll"** gained full marks for Non-stop run, was first in London, and was awarded Gold Medal and highest marks.

Medal at Paris Salon for **"Elegance and Comfort."**

In 1905.—10-12 H.P. **"Argylls"** gained 1st and 2nd places with Cup and Blue Riband at Australian Reliability Trials.

Non-stop, Scottish Reliability Trials and Tourist Trophy Trials.

Huddersfield Automobile Club Hill Climb. Class B (double-cylinder cars of any horse-power). 10 H.P. **"Argyll"** made fastest time.

Nottinghamshire Automobile Club Non-stop Run. 10 H.P. **"Argyll"** Non-stop.

Eastern Counties Automobile Club Gymkhana. Challenge Cup won by Mr. A. J. Snowdon on an **"Argyll."**

Irish Automobile Club Hill Climb. £400 Class, **"Argyll"** first.

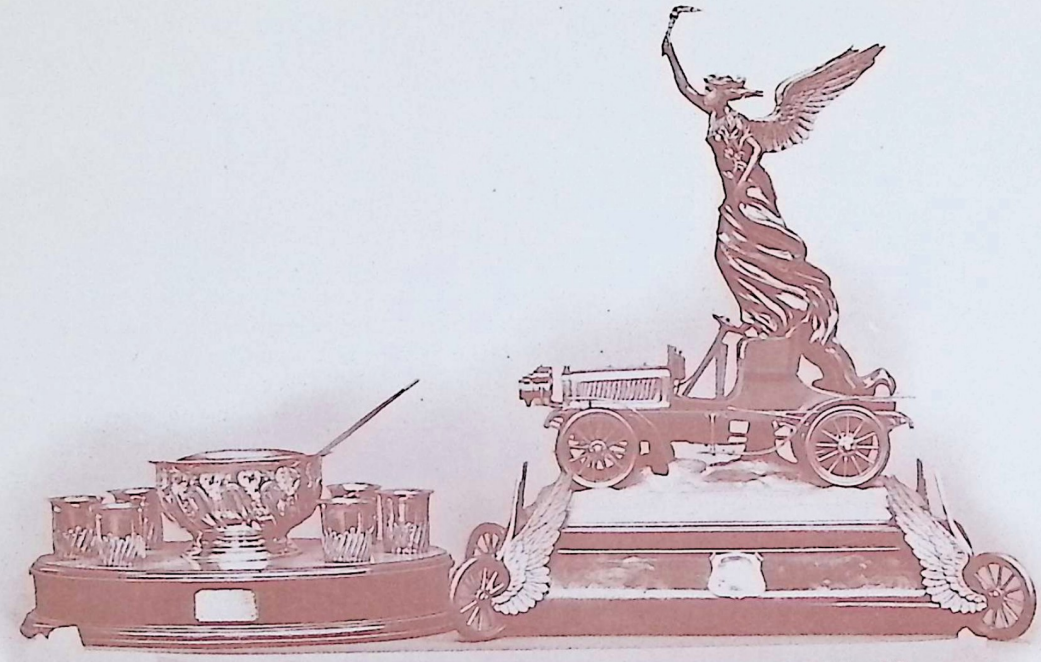
Saltley Hill, Lanchester. £500 Class, **"Argylls"** first and second; £350 Class, **"Argyll"** first.

Wirral Show. 2-cylinder **"Argyll,"** first prize (Gold Medal) "for best and most improved motor car for private use, price not to exceed £500."

Durham County Automobile Club Hill Climb. Class V., cars from 12 to 16 H.P., 12 H.P. **"Argyll"** first. Class VI., cars over 16 H.P., **"Argyll"** first and fastest time in all classes.

In 1906.—Bombay Reliability Trials.
Class B, 10-12 H.P. **"Argyll,"** 1st place.
Class C, 16-20 H.P. **"Argyll,"** 1st place.
(These were the only "Argylls" entered.)

A Recent Argyll Award.



AUSTRALIAN AUTOMOBILE ROAD BLUE RIBAND
FOR 1905.

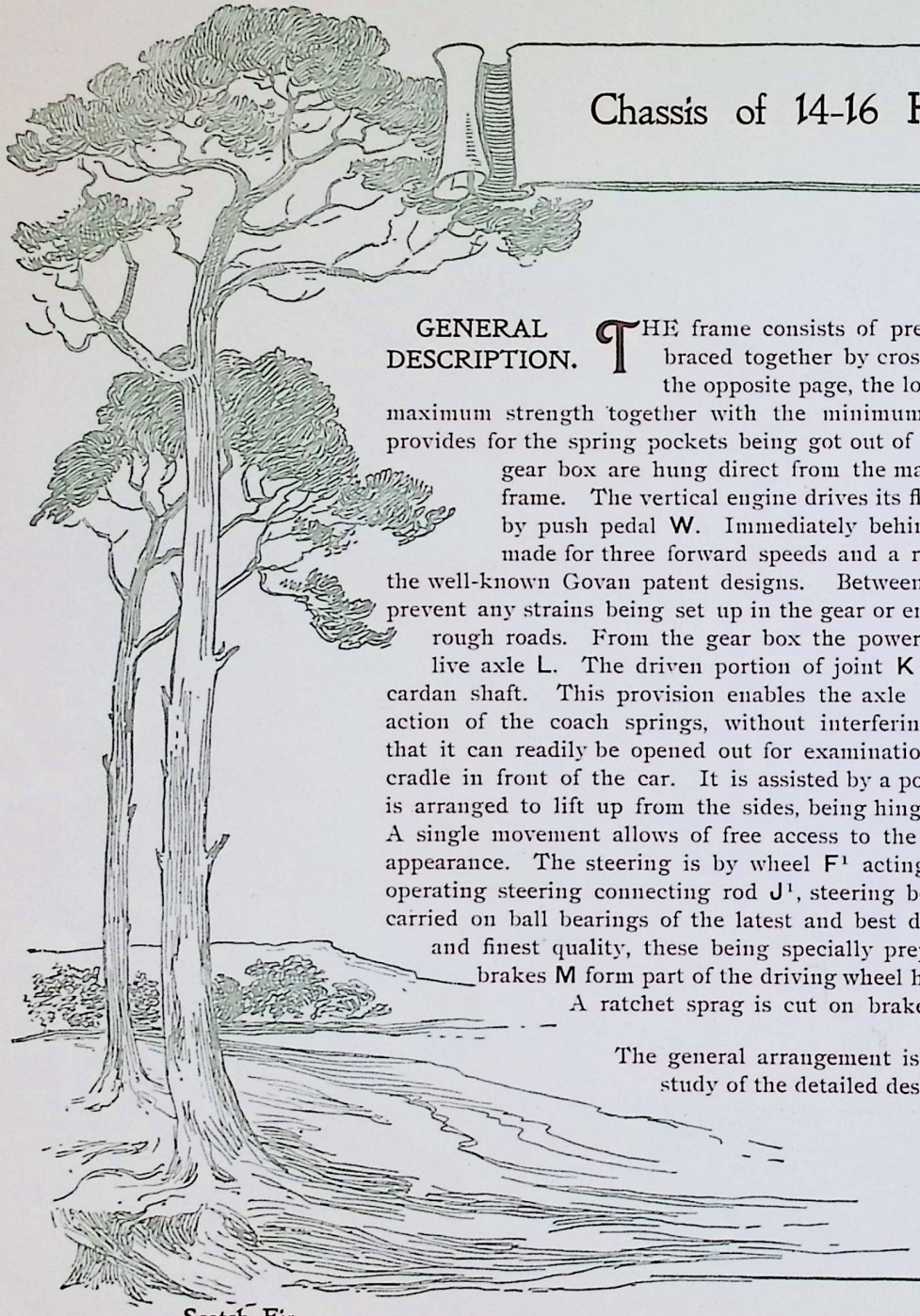
THE BUCHANAN CUP,

Won, with the Garland Cup and the Motoring Blue Riband of Australia, by H. TARRANT, on a 10-12 H.P. 2-cylinder Argyll. Distance, 712 miles.

The winning Argyll was the only vehicle in the heavy car section to score the maximum of 500 points.

Pollarded Willow:
Holland.

Chassis of 14-16 H.P. Argyll Car.

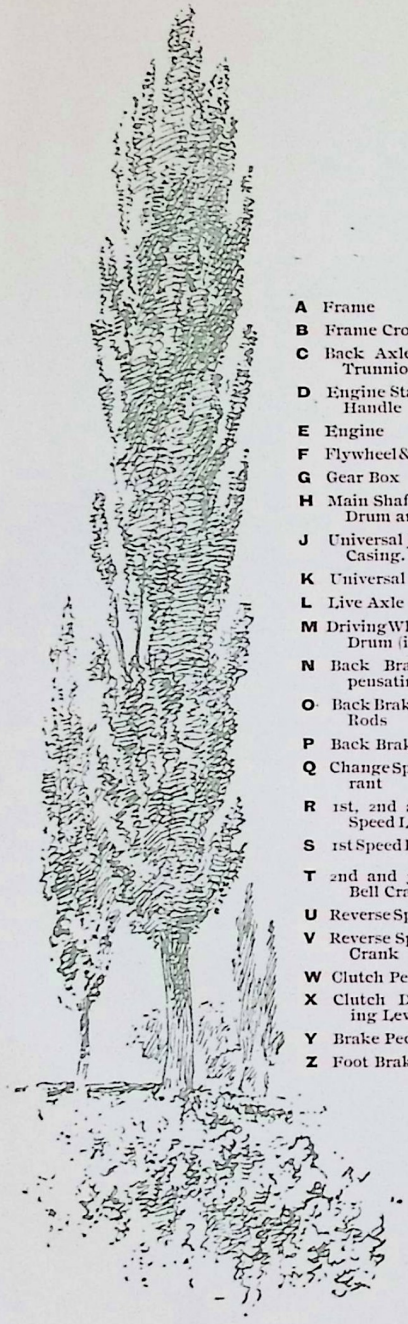


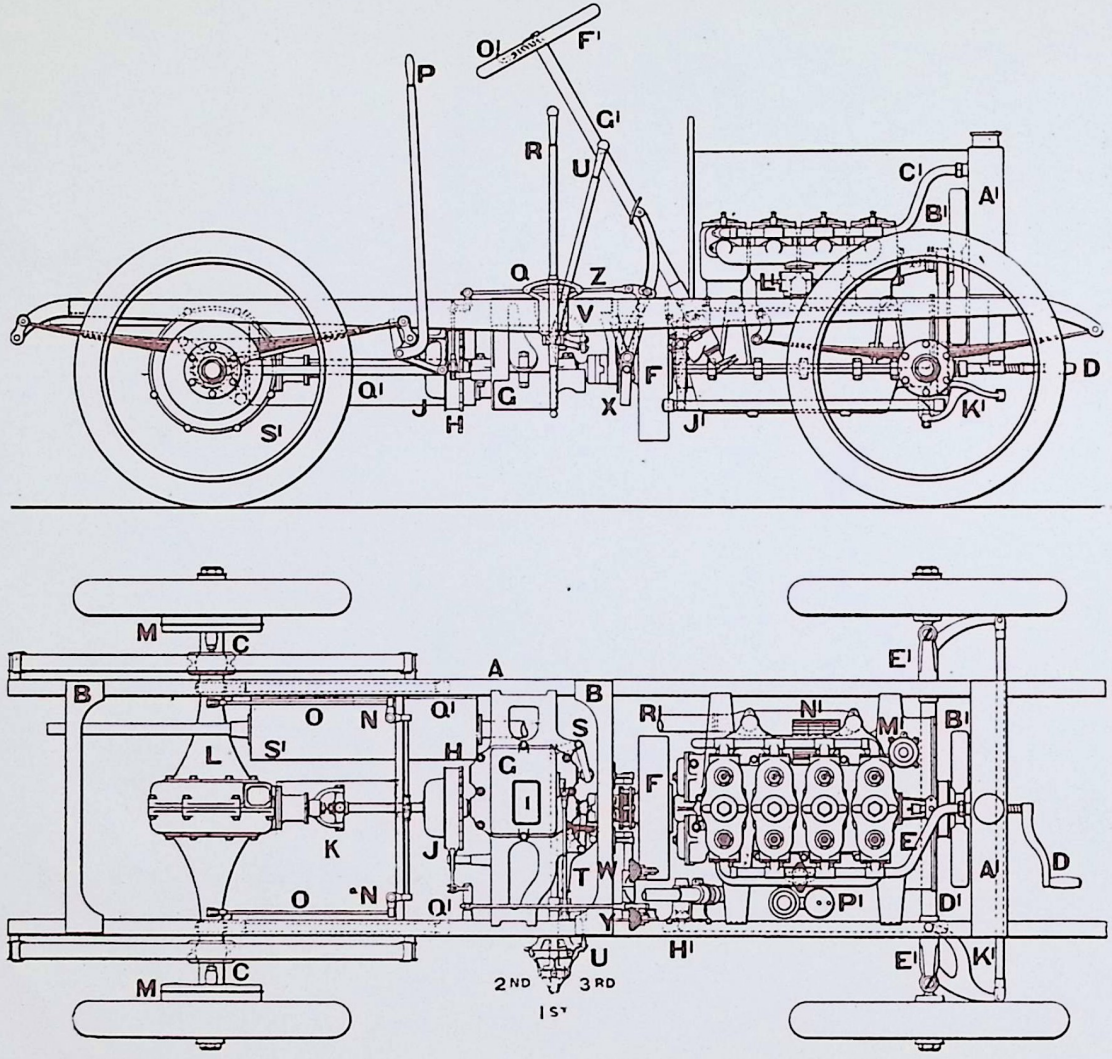
Scotch Fir.

GENERAL DESCRIPTION. THE frame consists of pressed steel runners A, of ∩ section. These are effectively braced together by cross bearers B. As may be seen from the elevation diagram on the opposite page, the longitudinal runners are of fish belly formation, so as to get the maximum strength together with the minimum of weight. They are made to our patent design, which provides for the spring pockets being got out of the same sheet of steel as the runner itself. The engine and gear box are hung direct from the main frame by suitable hangers, so dispensing with any under-frame. The vertical engine drives its fly-wheel F, in which is arranged the friction clutch operated by push pedal W. Immediately behind the clutch comes the gear box G, in which provision is made for three forward speeds and a reverse. This gear and the change speed arrangements are to the well-known Govan patent designs. Between the gear box and clutch a universal joint is introduced to prevent any strains being set up in the gear or engine bearings through yield of the frame when passing over rough roads. From the gear box the power is transmitted by cardan shaft and knuckle joint K to the live axle L. The driven portion of joint K inside casing J, is a sliding fit on the squared end of the cardan shaft. This provision enables the axle to change its position relative to the frame, owing to the action of the coach springs, without interfering with the driving gear. The live axle is so arranged that it can readily be opened out for examination. The radiator A^1 is of a special design, and is carried in a cradle in front of the car. It is assisted by a powerful fan B^1 driven by belt from engine shaft. The bonnet is arranged to lift up from the sides, being hinged along top, or it can, if required, very readily be removed. A single movement allows of free access to the engine. When closed the bonnet is smart and pleasing in appearance. The steering is by wheel F^1 acting on worm wheel and segment encased in oil tight box and operating steering connecting rod J^1, steering bell crank K^1, and road wheel swivels E^1. These wheels are carried on ball bearings of the latest and best design. The carriage rides on springs of exceptional length and finest quality, these being specially prepared for us of highest grade steel. Internal hand operated brakes M form part of the driving wheel hubs. A foot brake operated by push pedal Y is also provided. A ratchet sprag is cut on brake drum H.

The general arrangement is best understood by a reference to the index to parts and the study of the detailed descriptions and illustrations given in the following pages.

Chassis of 14-16 H.P. Argyll Car.

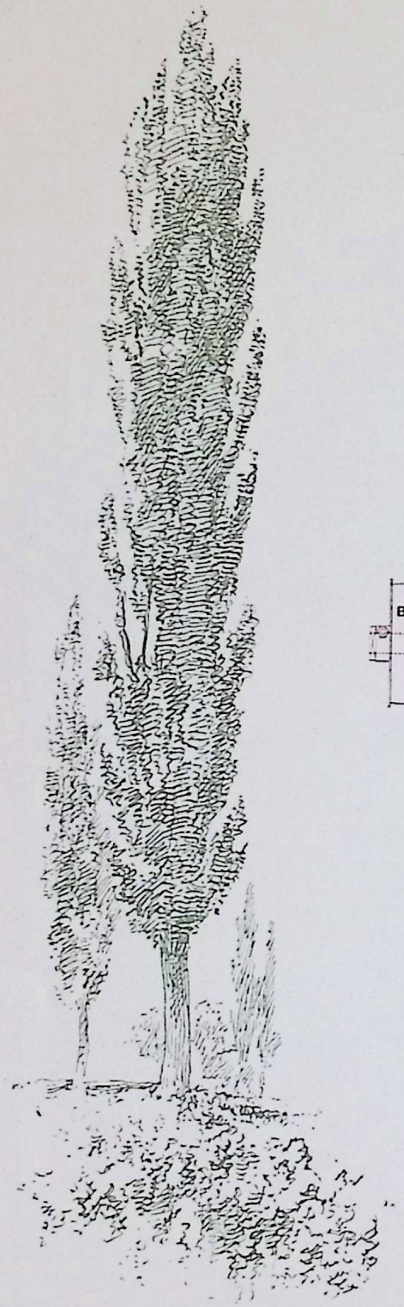




A Frame
B Frame Crossbar
C Back Axle Ball Trunnions
D Engine Starting Handle
E Engine
F Flywheel & Clutch
G Gear Box
H Main Shaft Brake Drum and Sprag
J Universal Joint Casing.
K Universal Joint
L Live Axle
M Driving Wheel Brake Drum (internal)
N Back Brake Compensating Cranks
O Back Brake Tension Rods
P Back Brake Lever
Q Change Speed Quadrant
R 1st, 2nd and 3rd Speed Lever
S 1st Speed Bell Crank
T 2nd and 3rd Speed Bell Crank
U Reverse Speed Lever
V Reverse Speed Bell Crank
W Clutch Pedal
X Clutch Disengaging Levers
Y Brake Pedal
Z Foot Brake Rod

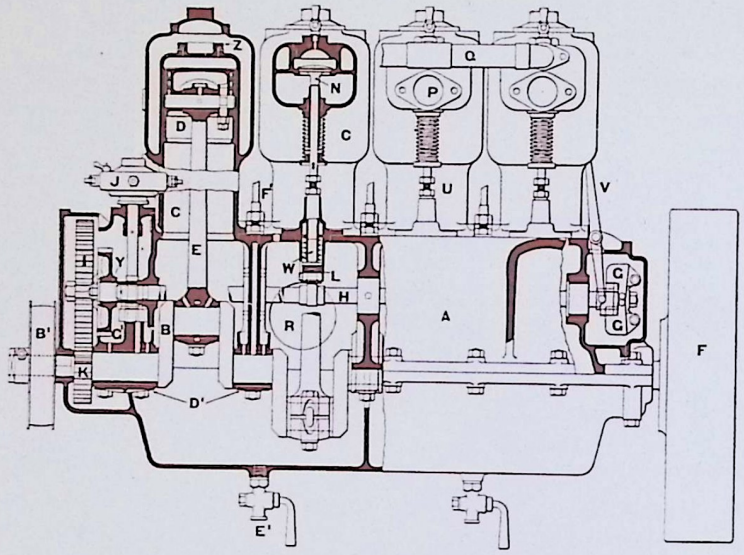
A1 Radiator
B1 Fan
C1 Top Water Pipe
D1 Front Axle
E1 Front Axle Swivels
F1 Steering Wheel
G1 Steering Wheel Pillar
H1 Enclosed Irreversible Steering Gear Box
J1 Steering Connecting Rod
K1 Steering Bell Crank
L1 Throttle
M1 Commutator
N1 Magneto
O1 Ignition & Throttle Control Levers
P1 Carburettor
Q1 Radius Rods
R1 Exhaust Pipe
S1 Silencer

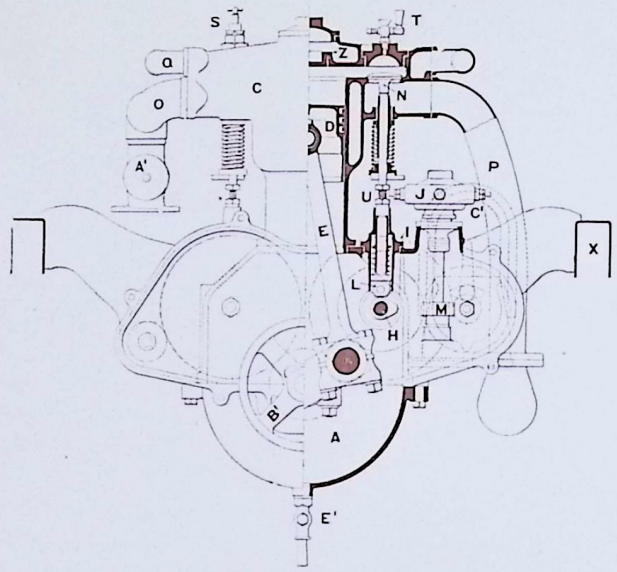
Poplar: France.



Poplar: France.

4-Cylinder Argyll Engine.





A Crank Case.
B Crank Shaft.
C Cylinders.
D Piston.
E Connecting Rod.
F Flywheel.
G Governor.
H Cam Shaft.
I Half Time Wheel.

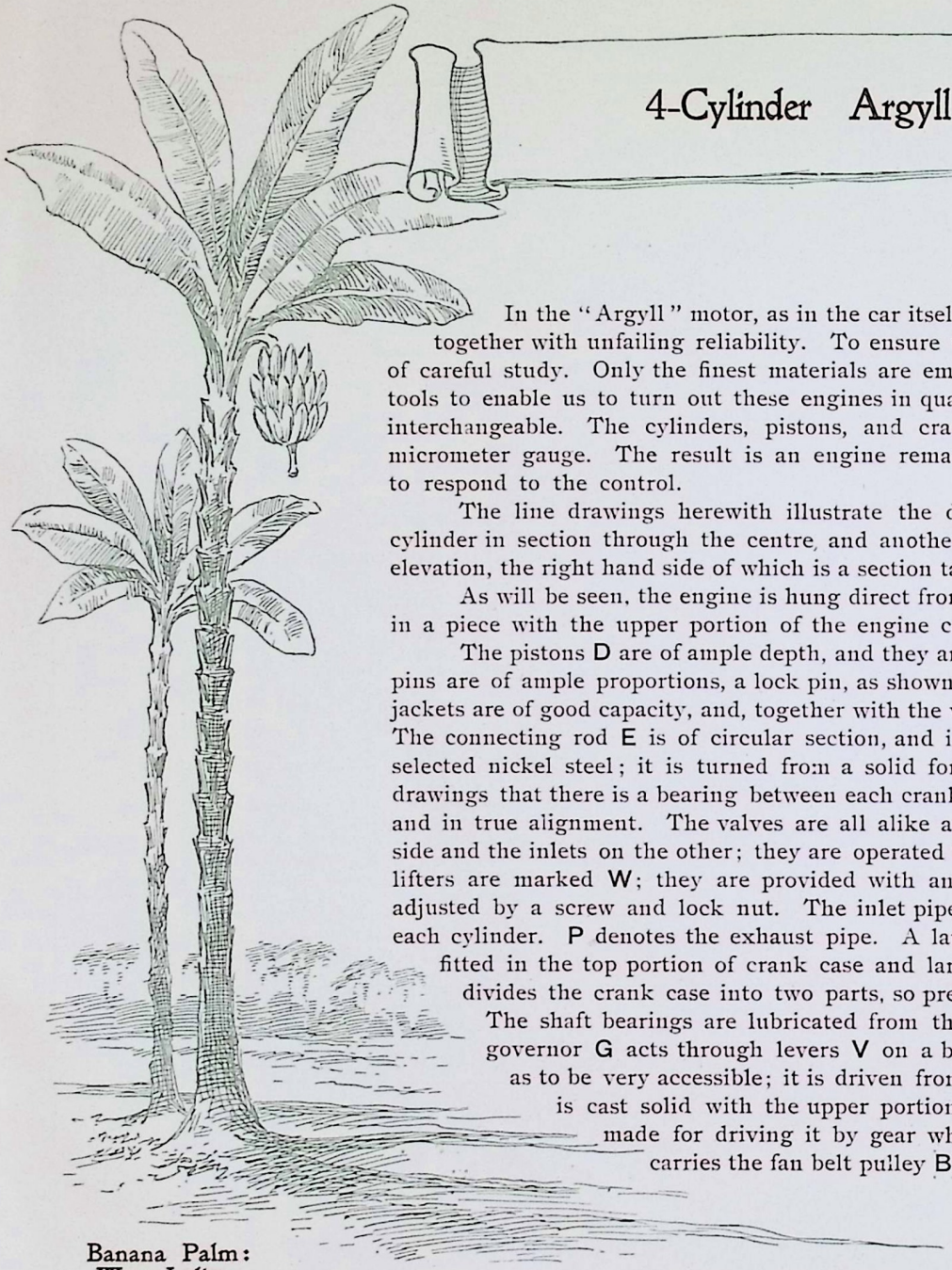
J Commutator.
K Main Shaft Timing Wheel.
L Valve Lifter Roller.
M Commutator Spiral Wheel.
N Exhaust Valve.
O Inlet Pipe.
P Exhaust Pipe.
Q Water Circulating Pipes.
R Inspection Door.

S Sparking Plug.
T Compression Tap.
U Valve Adjusting Pins.
V Governor Lever.
W Valve Lifter.
X Frame.
Y Magneto Driving Wheel.
Z Cylinder Plug.

A1 Throttle.
B1 Fan Pulley.
C1 Magneto.
D1 Crank Shaft Bearing Covers.
E1 Drain Cocks.
F1 Crank Shaft Lubricating Unions.
G1 Main Bearing Oil Pocket.

DESCRIPTION. THIS engine is the outcome of our great experience with petrol engines of our own and other well known makes. In it we have embodied all the best points as demonstrated by extended trials on the test bench and the road, of the various designs known to the engineer.

4-Cylinder Argyll Engine.



Banana Palm:
West Indies.

In the "Argyll" motor, as in the car itself, the outstanding features are simplicity and accessibility, together with unfailing reliability. To ensure the success of this engine, every part has been the subject of careful study. Only the finest materials are employed, and we have spared no expense in providing special tools to enable us to turn out these engines in quantities, with every part accurately machined and absolutely interchangeable. The cylinders, pistons, and cranks, as well as the other working parts, are ground to micrometer gauge. The result is an engine remarkably steady and quiet at all speeds, flexible, and quick to respond to the control.

The line drawings herewith illustrate the design. The one view shows a side elevation, with one cylinder in section through the centre, and another in section through the valves. The other view is an end elevation, the right hand side of which is a section taken through one of the cylinders and its inlet valve.

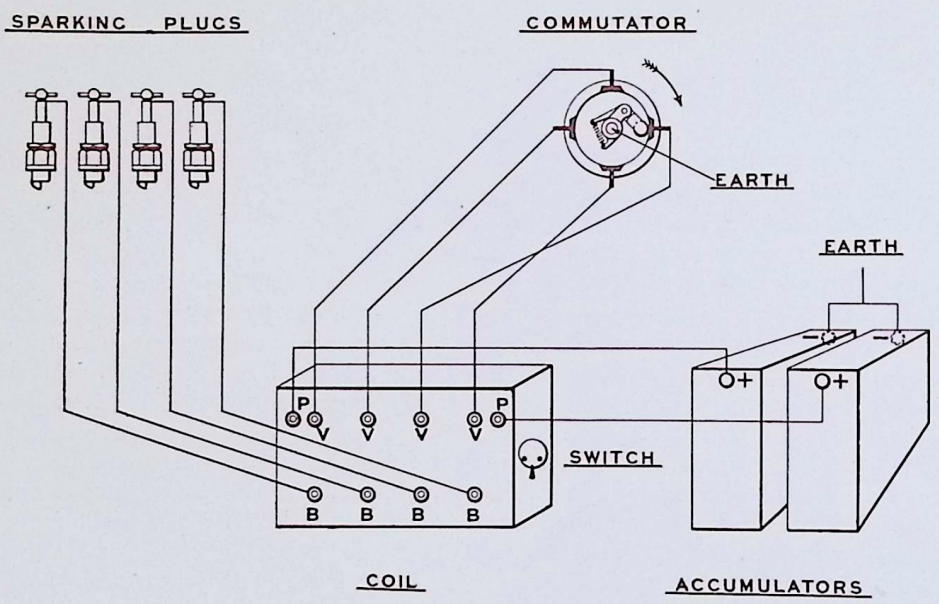
As will be seen, the engine is hung direct from the main frame X by means of substantial brackets cast in a piece with the upper portion of the engine casing.

The pistons D are of ample depth, and they are kept tight by the assistance of three rings. The gudgeon pins are of ample proportions, a lock pin, as shown, being provided to secure each pin in position. The water jackets are of good capacity, and, together with the water connections, are arranged so as to be most effective. The connecting rod E is of circular section, and is a machined steel forging. The crank shaft is of carefully selected nickel steel; it is turned from a solid forging and ground to exact size. It will be seen from the drawings that there is a bearing between each crank; these bearings are well bolted, and hold the shaft firmly and in true alignment. The valves are all alike and interchangeable, being arranged the exhausts on the one side and the inlets on the other; they are operated by two cam shafts driven by two to one gearing. The valve lifters are marked W; they are provided with anti-friction rollers L. The amount of lift of each can be adjusted by a screw and lock nut. The inlet pipe O is arranged so as to give an equal distribution of gas to each cylinder. P denotes the exhaust pipe. A large diameter flywheel F is provided. Inspection doors are fitted in the top portion of crank case and large under-cover. The lubrication is by splash; a bulkhead divides the crank case into two parts, so preventing unequal lubrication when the car is on an incline. The shaft bearings are lubricated from the dash board reservoir through pipes F^1. A centrifugal governor G acts through levers V on a balanced throttle valve A^1. The commutator J is so placed as to be very accessible; it is driven from the exhaust cam shaft by screw gear. A suitable bracket is cast solid with the upper portion of the crank case for carrying a magneto, and provision is made for driving it by gear wheels enclosed in the case. The front end of crank shaft carries the fan belt pulley B^1, with which is incorporated the starting handle clutch.

Poplar: France.

Argyll High Tension Ignition.

DESCRIPTION. WITHOUT doubt the simplest and best all round type of ignition apparatus is the high tension battery system. The illustration shows diagrammatically how this system is applied to a four cylinder engine. The current is obtained from a woven glass accumulator—a spare one of which is usually carried. The low voltage current from this battery is converted into a high tension one by means of induction coils, one of these being provided for each cylinder. The current is distributed or passed to the induction coil corresponding to each cylinder by means of the commutator. This consists of a fibre ring into which are let steel contact pieces. A roller carried round by the engine cam shaft and held against this ring by a spring completes the electric circuit at the proper time. When this occurs, the low tension or primary current flows from the positive + pole of the battery which may be in use, by a wire to terminal P on induction coil, across the contacts of the trembler to the primary winding; this consists of a few turns of comparatively thick wire, then from terminal V to the contact piece of commutator, hence by the roller to cam shaft and engine frame (electrically known as "the earth") and by earth wire and switch back to the battery. As soon as this flow of current begins, an iron core within the winding attracts the blade of the trembler and pulls it out of contact with the platinum pointed screw from which the current has been flowing. On this occurring the current ceases and the blade is drawn back into contact by the action of a light spring. The result is a steady make and break of the flow of current in the primary circuit, this sets up corresponding pulsations of current of greatly increased voltage, in the many turns of fine wire forming the secondary circuit surrounding the primary. This high tension current passes from terminal B by way of the highly insulated wire to the sparking plug, where it jumps the gap, giving the spark, and hence, by way of the body of the plug, the engine (earth) frame, and connecting wire to the terminal V of the coil, thus completing its circuit. The diagram shows a spare accumulator wired up to a 2-way switch, which for convenience is placed on the side of the coil box. To facilitate tracing the connections, the high tension wires passing to the plugs are of different colours, thus—1st cylinder, left hand connection V on coil, Black; 2nd cylinder, Green; 3rd, Red; 4th, Yellow.



The Advantages of this system over the Magneto:

Its great simplicity.

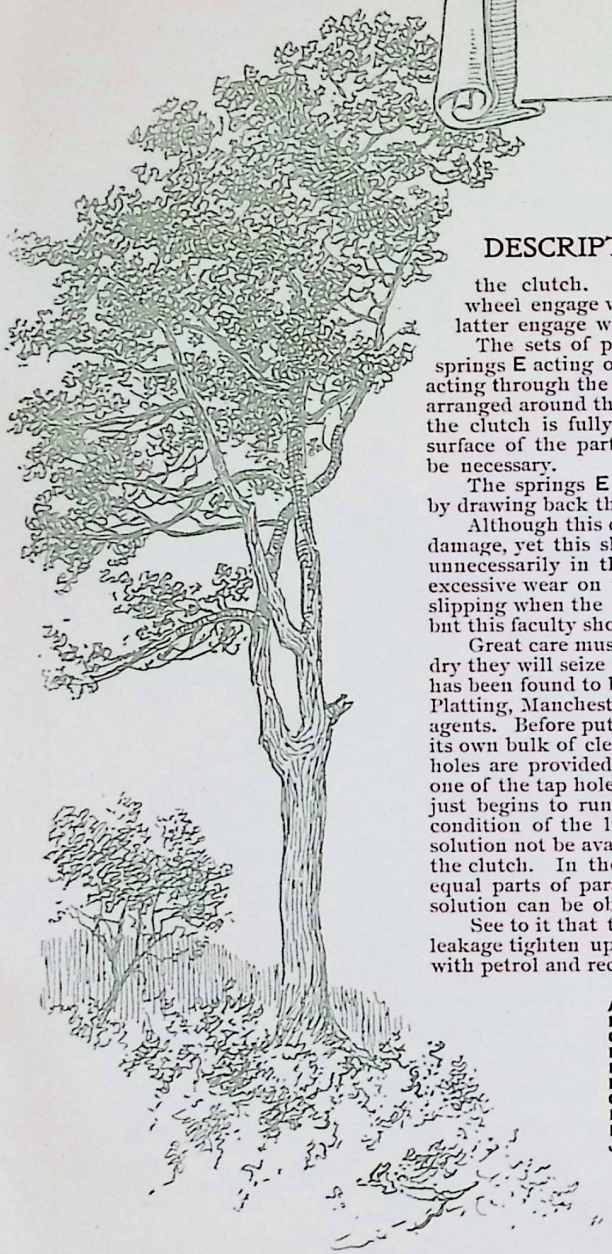
The ease with which it can be kept in order.

The good spark given at every engine speed.

The facility with which engine can be started.

The facility with which repairs or renewals may be effected.

Argyll Friction Clutch.



Oak: England.

DESCRIPTION. THIS clutch consists of a series of thin steel plates of V section arranged in the flywheel. The one set is in frictional contact with the other, and together they transmit the motion from the flywheel to the driven shaft. The illustration shows a vertical section through the clutch. P is the end of the engine crank shaft, to which is bolted the flywheel A. A series of studs K in the wheel engage with notches in the set of plates F. These are in frictional contact with an alternate set G. Notches in these latter engage with projections on the wheel I, which is fixed to the driven shaft J.

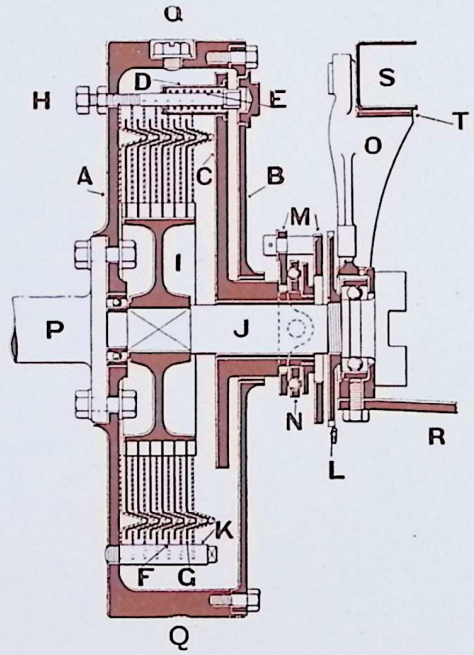
The sets of plates are kept in contact with each other by the action of the springs E acting on the bearing plate C. The clutch is released by the push pedal acting through the ball race N, and so drawing out the plate C. Small bent springs arranged around the edges of the plates F help to free them from each other. When the clutch is fully released the disc L is brought into frictional contact with the surface of the part M, so ensuring the quick stoppage of the shaft J should such be necessary.

The springs E can be tightened, so increasing the driving power of the clutch, by drawing back the screws H, care being taken to do this equally all round.

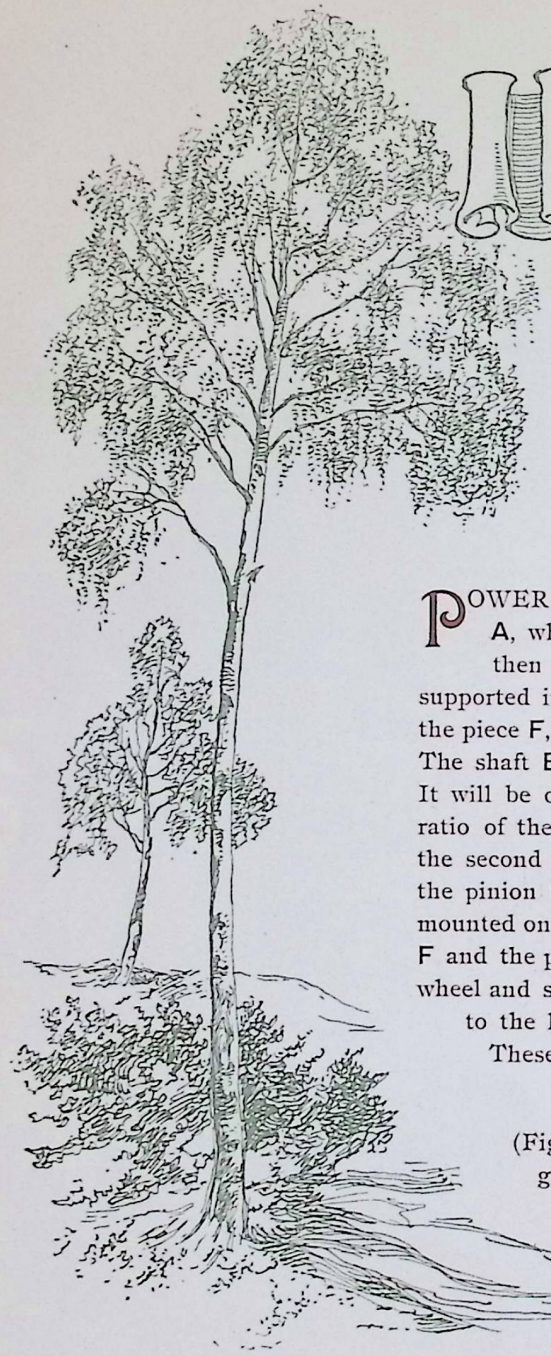
Although this clutch is designed to permit a great amount of slip without causing damage, yet this should not be abused, *i.e.*, the clutch should not be allowed to slip unnecessarily in the ordinary course of driving, as to do so persistently causes excessive wear on the plates. Advantage may be taken of the facility of the clutch slipping when the car is running slowly through traffic or when the car is starting, but this faculty should be used sparingly or the life of the plates will be shortened.

Great care must be exercised as to lubrication, as if the plates are allowed to run dry they will seize and their surface be destroyed. The most satisfactory lubricant has been found to be a special solution made by Messrs. J. M. Beckett & Sons, Miles Platting, Manchester. This solution can be had from our works, or from any of our agents. Before putting the solution into the clutch it must be diluted with five times its own bulk of clean water; the full charge is six pints of this mixture. Two tap holes are provided in the flywheel at 90 degrees apart. To charge the clutch turn one of the tap holes to the top and remove both plugs, then add the solution until it just begins to run out at the other. After every 1000 miles running examine the condition of the lubricant, and add more solution if it is too low. Should fresh solution not be available and only a little be required add clean water to the stock in the clutch. In the case of solution not being procurable, a lubricant consisting of equal parts of paraffin and good light machinery oil may be used until the proper solution can be obtained.

See to it that the cover plate E makes a good joint; should it show any signs of leakage tighten up the screws. Should the clutch not be acting properly wash out with petrol and recharge with solution.



A Flywheel
B Flywheel Disc
C Pressure Plate
D Pressure Spring Casing
E Pressure Spring
F Outer Friction Plate
G Inner Friction Plate
H Adjusting Stud
I Clutch Shaft Driver
J Clutch Shaft
K Friction Plate Driving Pin
L Clutch Shaft Brake Disc
M Fixed Brake Disc
N Actuating Ball Race
O Clutch Shaft Supporting Bracket
P Engine Shaft
Q Oil Plugs
R Stay
S Frame Crossbar



Argyll Car---Description of Gearing.

(GOVAN PATENT.)

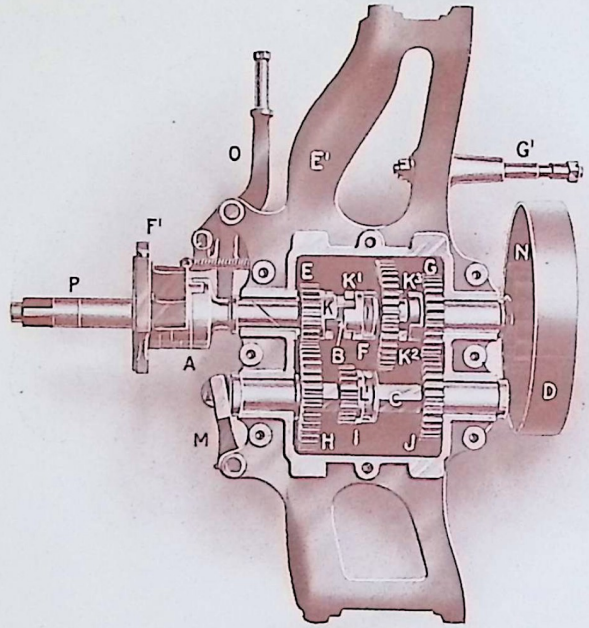
This Gear is unique in that it cannot be Strained or Broken even by a Novice. The Shafts are short and stiff, and the Top Speed is got by a Direct Drive.

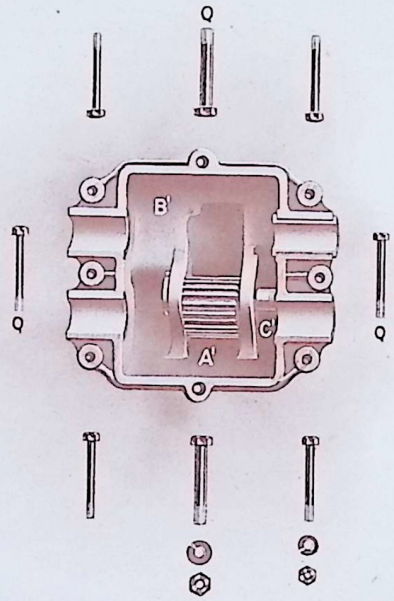
POWER is transmitted from the engine shaft through the friction clutch to the universal sliding coupling A, which is firmly fixed to the hollow shaft on which the pinion E is cut from the solid; the power is then conveyed to the propeller shaft by means of the shaft B, which is turned down at one end and is supported in the hollow shaft by a ball bearing not visible. The direct top speed drive is obtained by sliding the piece F, which is mounted on the square part of shaft B until the clutch K^1 engages with the clutch K. The shaft B will now be rotated at the same rate as the shaft E, and the pinions H, J, and G will run idle. It will be observed that the clutch K^3 will revolve at a slower speed than the clutch K, according to the ratio of the pinions E H and J G, so that when the piece F is moved until the clutch K^2 engages with K^3 the second speed is obtained. To secure the first speed the wheel F is put back in the mid position and the pinion I is moved on the square countershaft C until it engages with the wheel F. The idle pinion A^1 is mounted on a shaft carried eccentrically in the lid of the gear box; it is wide enough to engage with the wheel F and the pinion I when these are not in mesh. The reverse is obtained by turning the shaft carrying this wheel and so rolling it down into mesh with F and I. The various movements are explained by referring to the line drawings. The sliding wheel F and pinion I are operated by levers O and M respectively. These are in turn moved by handle X (fig. 1, page 19).

Figures 1, 2 and 3 show the action of the change speed levers. The quadrant is shown at S (Fig. 1). When the forward speed lever X is in the central position, as indicated in Fig. 2, the gears are in the free position. When it is moved backwards to the second speed or forward to the third speed, no motion is given to the slow speed actuating bell crank M; and when lever X is pushed into the first position in the quadrant then no motion is given to the second

Birch: Wales.

Description of Gearing—Continued.





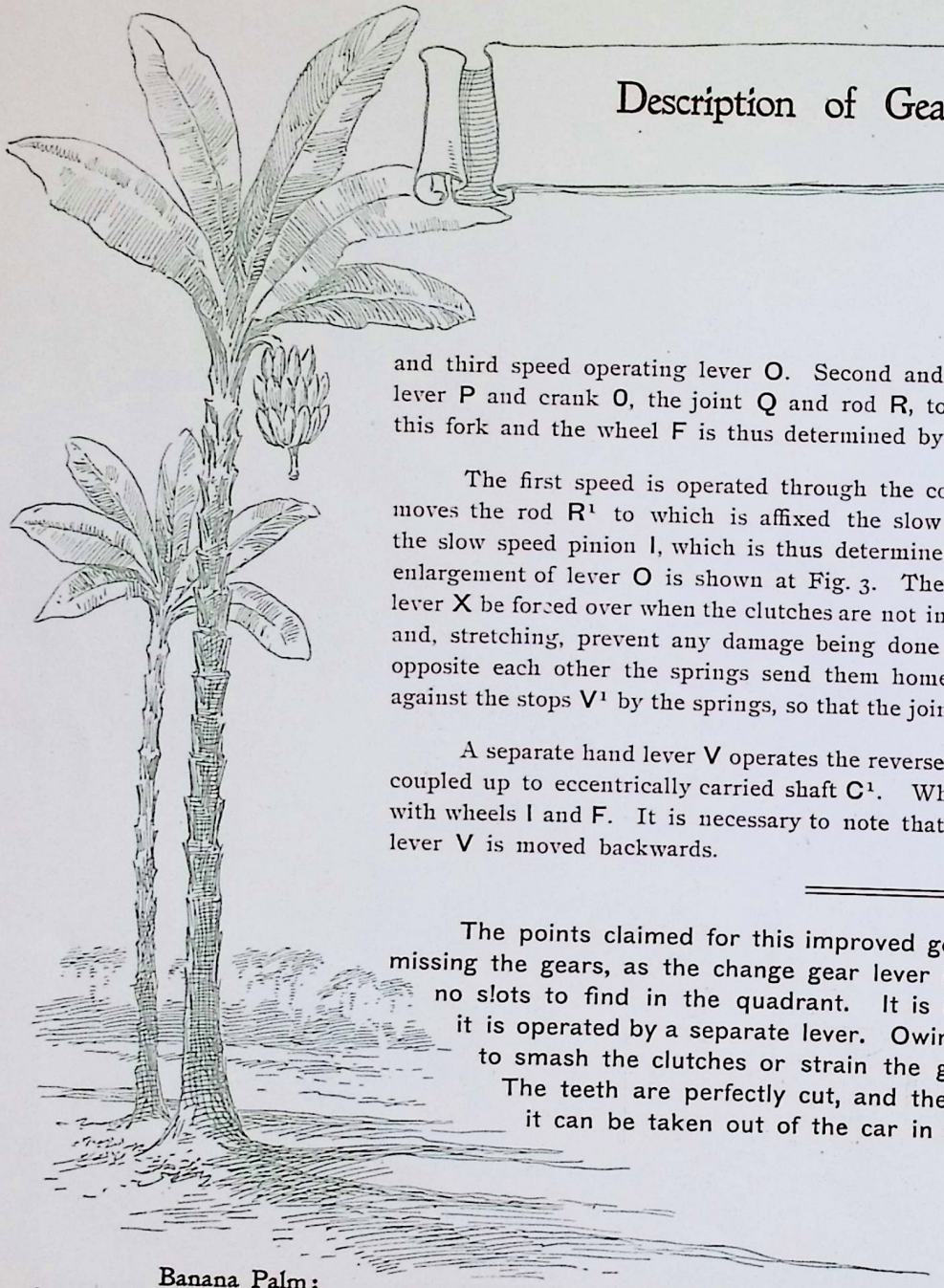
A Universal Sliding Coupling
B Main Shaft
C Counter Shaft
D Brake Drum
E 3rd Speed Pinion and Shaft
F 1st ,, Wheel
G 2nd ,, ,,
H Counter Shaft Speed Wheel
I 1st Speed Pinion

J 2nd Speed Pinion
K 3rd ,, Clutches
K1 3rd ,, Engaging Clutches
K2 2nd ,, ,, ,,
K3 2nd ,, Clutches
L Actuating Fork (Main Shaft)
L1 ,, ,, (Counter Shaft)
M 1st Speed Bell Crank
N Sprag Ratchet

O 2nd and 3rd Speed Bell Crank
P Friction Clutch Shaft
Q Bearing Joint Bolts
A1 Reversing Pinion
B1 Gear Box Cover
C1 Reversing Spindle
D1 Gear Box Cover Clamps
E1 Gear Box Bracket
G1 Brake Pivot Spindle

Pollarded Willow:
Holland.

Description of Gearing—Continued.



Banana Palm:
West Indies.

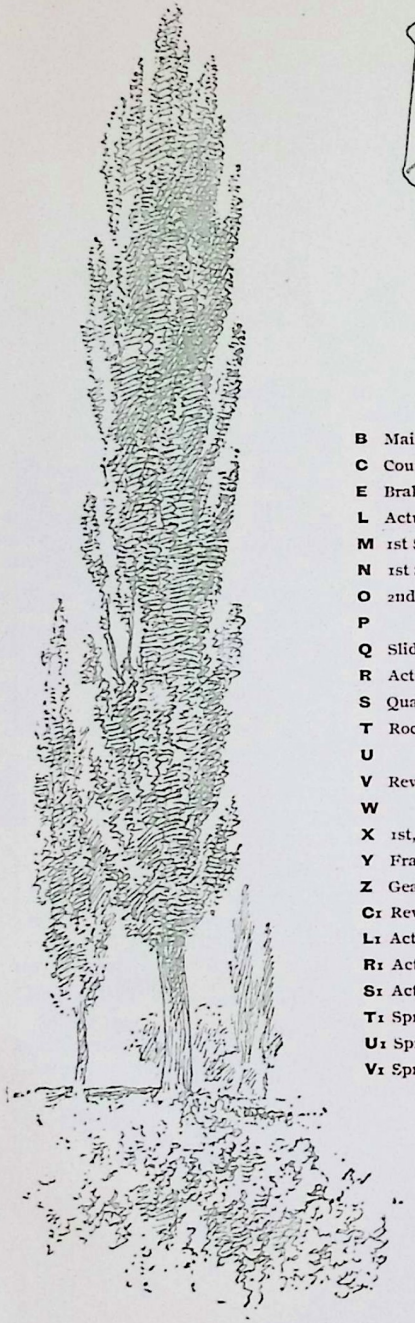
and third speed operating lever O. Second and third speeds are operated through the rocking shaft T, the lever P and crank 0, the joint Q and rod R, to which is attached the actuating fork L. The position of this fork and the wheel F is thus determined by movement of speed lever X.

The first speed is operated through the connecting rod N, the bell crank M and the joint Q^1 which moves the rod R^1 to which is affixed the slow speed actuating fork L^1. This fork fixes the position of the slow speed pinion I, which is thus determined by the position of lever X in the T-slotted quadrant. An enlargement of lever O is shown at Fig. 3. The main fulcrum is in the centre, but should the change speed lever X be forced over when the clutches are not in a position to mesh, then the springs U^1 come into operation, and, stretching, prevent any damage being done to the clutches or gearing. As soon as the clutches are opposite each other the springs send them home. It will be observed that the little levers T^1 are pulled against the stops V^1 by the springs, so that the joint Q is always returned to its normal position.

A separate hand lever V operates the reverse through the bell crank W and the connecting rod and lever coupled up to eccentrically carried shaft C^1. When lever V is drawn back, it causes idle wheel A^1 to mesh with wheels I and F. It is necessary to note that the lever X must be in its middle position before reverse lever V is moved backwards.

The points claimed for this improved gear are:—When driving at night there is no chance of missing the gears, as the change gear lever is in each direction pushed to a full stop, there being no slots to find in the quadrant. It is impossible to put in the reverse gear by mistake, as it is operated by a separate lever. Owing to the levers O being made flexible it is impossible to smash the clutches or strain the gear. The gear shafts are short, obviating all spring. The teeth are perfectly cut, and the gear runs noiselessly. The gear is most accessible; it can be taken out of the car in a few minutes.

Description of Gearing—Continued.



Poplar: France.

- **B** Main Shaft
- **C** Counter Shaft
- **E** Brake Drum and Sprag
- **L** Actuating Fork (Main Shaft)
- **M** 1st Speed Bell Crank
- **N** 1st Speed Connecting Rod
- **O** 2nd and 3rd Speed Bell Crank
- **P** ,, ,, Connecting Rod
- **Q** Sliding Pivots
- **R** Actuating Shaft (Main)
- **S** Quadrant
- **T** Rocking Shaft
- **U** ,, ,, Fork
- **V** Reversing Lever
- **W** ,, Bell Crank
- **X** 1st, 2nd and 3rd Change Speed Lever
- **Y** Frame
- **Z** Gear Box Inspection Door
- **C1** Reversing Spindle
- **L1** Actuating Fork (Counter Shaft)
- **R1** Actuating Shaft (Counter)
- **S1** Actuating Spring Lever
- **T1** Spring Links
- **U1** Spring
- **V1** Spring Link Stops

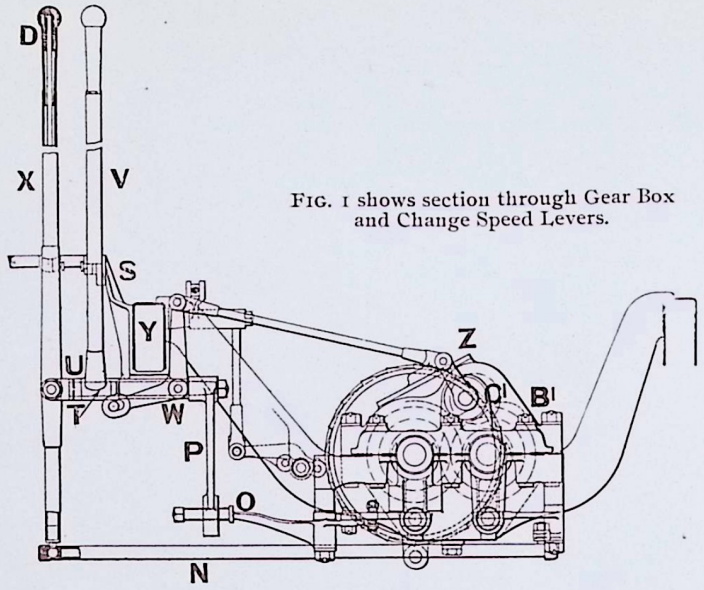


FIG. 1 shows section through Gear Box and Change Speed Levers.

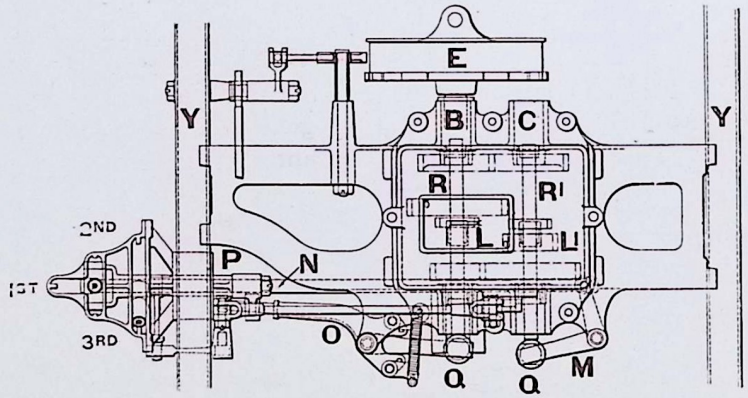
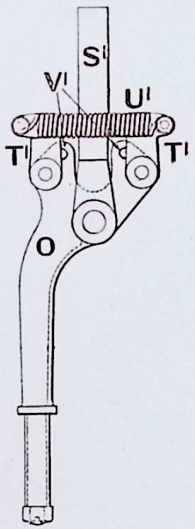
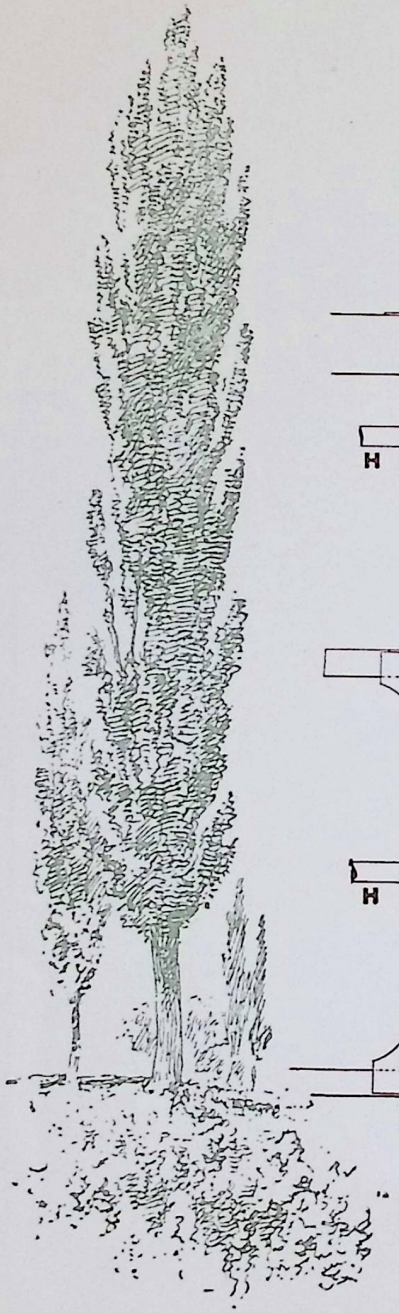


FIG. 2 shows plan of Gear Box and Levers.

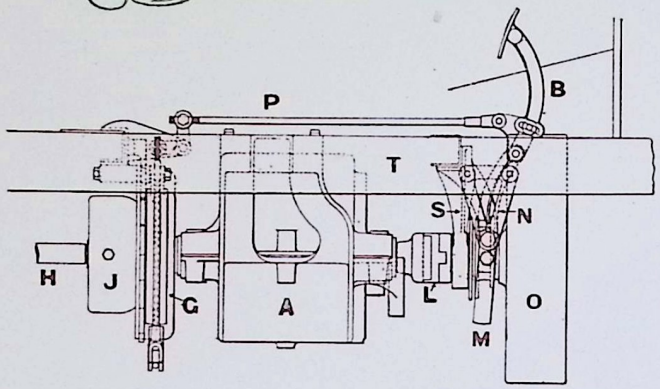
FIG. 3 is an enlarged view of the Flexible Lever O.

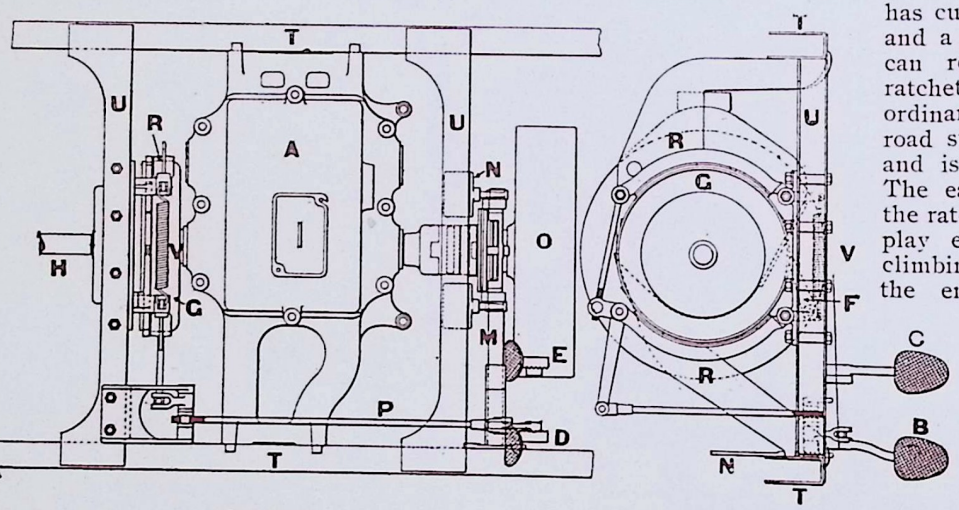


Argyll Pedals and Foot Brake.



Poplar: France.





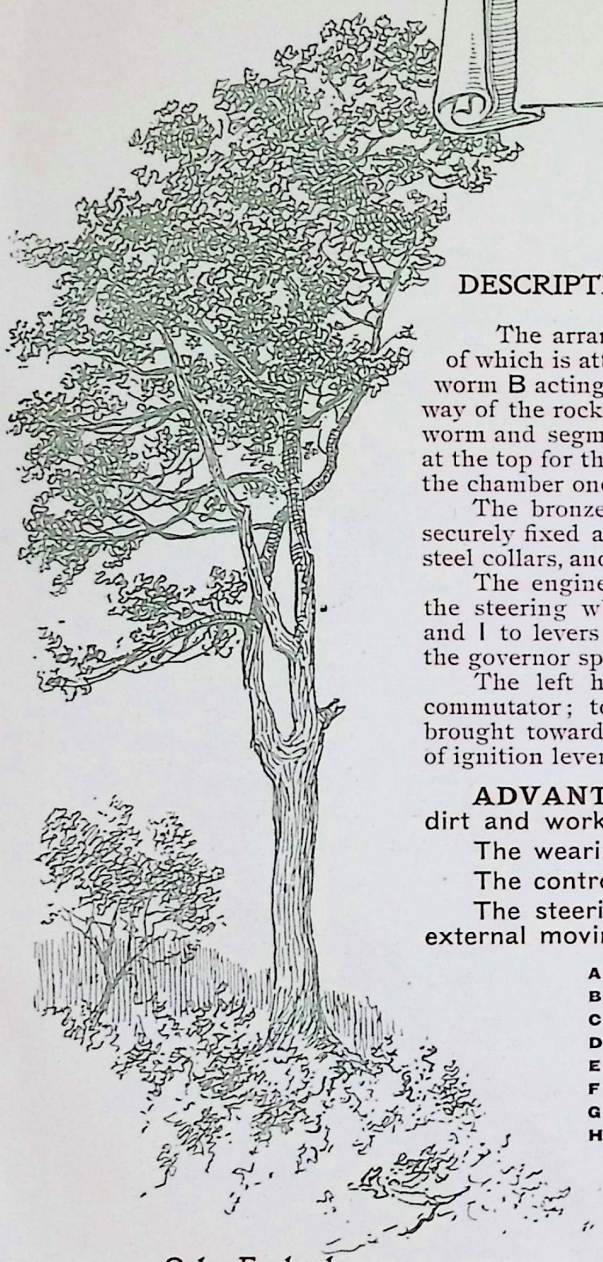
THE three views given below show the relative positions of the clutch, gear box, foot brake, and operating levers. The clutch O, itself driven direct from the engine shaft, communicates its motion by way of the coupling L to the gear box main shaft V. At the other end of the gear box is arranged the brake pulley F carrying within it the universal joint on end of propeller shaft R by way of which the motion passes to the rear axle.

The left hand pedal C operates the clutch O, while the right hand pedal B when pushed forward applies the brake F through rods P, and bell cranks H and J. Adjustment of brake is secured by altering the lengths of the rods P or P_1, while the position of the pedal can be varied as desired, a slotted hole being provided for the purpose. The brake drum F has cut on its rim a saw tooth ratchet, and a pawl K is so arranged that it can readily engage with it. This ratchet sprag takes the place of the ordinary bar designed to catch on the road surface, which is usually fitted, and is a great improvement on it. The ease and certainty with which the ratchet sprag can be brought into play ensures complete safety when climbing the steepest hill, even should the engine from some unexpected reason entirely fail.

A Gear Box
B Brake Pedal
C Clutch Pedal
D Brake Pedal Adjusting Arm
E Clutch „ „ „
F Brake Drum
G Foot Brake Carrier
H „ „ Bell Crank
I Bell Crank Bracket
J Foot Brake Actuating Lever
K Pawl for Sprag
L Universal Coupling
M Clutch Actuating Shaft
N Pedal Shaft Brackets
O Friction Clutch
P Brake Rod (Horizontal)
P_1 „ „ (Vertical)
R Propeller Shaft
S Clutch Shaft Bracket
T Frame
U Cross Bars
V Gear Box Coupling

Argyll Car Steering Gear.

(As Fitted to 4-Cylinder Cars.)



Oak: England.

DESCRIPTION. THE importance of the steering gear has been kept well in mind when designing this part of the car, and only the finest material and workmanship are employed.

The arrangement consists of a steering pillar F carrying a tube H, to one end of which is attached the operating handwheel, and to the other the machine-cut steel worm B acting on the wheel segment C. The motion of this segment is conveyed by way of the rocking shaft to swing lever E and thence to the road wheel swivels. The worm and segment are encased in oil-filled chamber A. Screw plugs P are provided at the top for the injection of solidified oil and below for convenience in washing out the chamber once in a while with paraffin.

The bronze shell A is bolted direct to the frame of the car at O, and is thus securely fixed against any possible movement. End thrust of the worm is taken by steel collars, and adjustment is provided by means of the threaded sleeve D.

The engine control levers N and N^1 are arranged on a notched quadrant within the steering wheel; the movement from these is conveyed by way of the tubes K and I to levers J and L, and thence by ball-jointed rods to the commutator and the governor spring control.

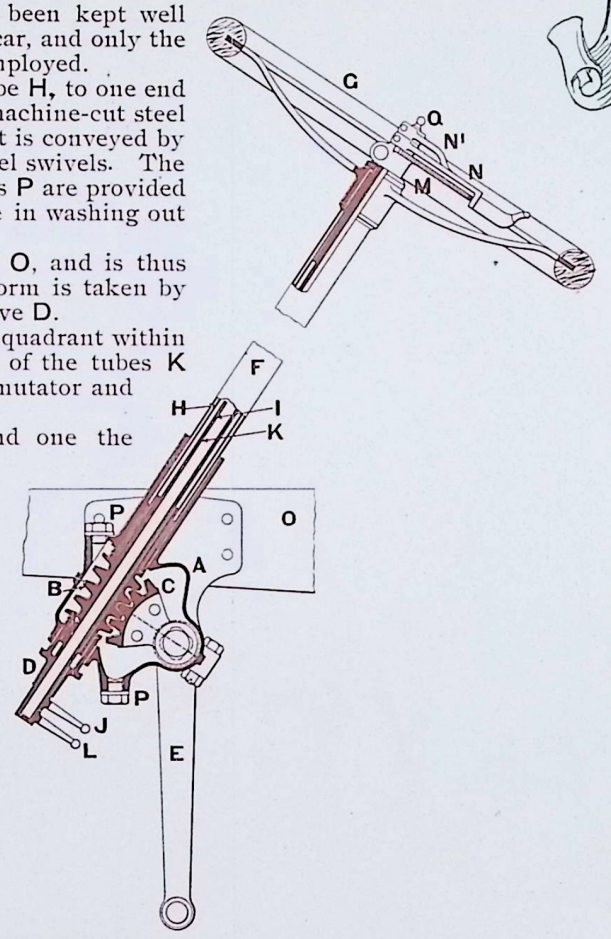
The left hand lever controls the governor and the right hand one the commutator; to increase the engine speed the governor lever is brought towards the centre of the quadrant, and a similar movement of ignition lever accelerates the spark.

ADVANTAGES.—All the wearing parts are encased from dirt and work in oil.

The wearing parts are adjustable.

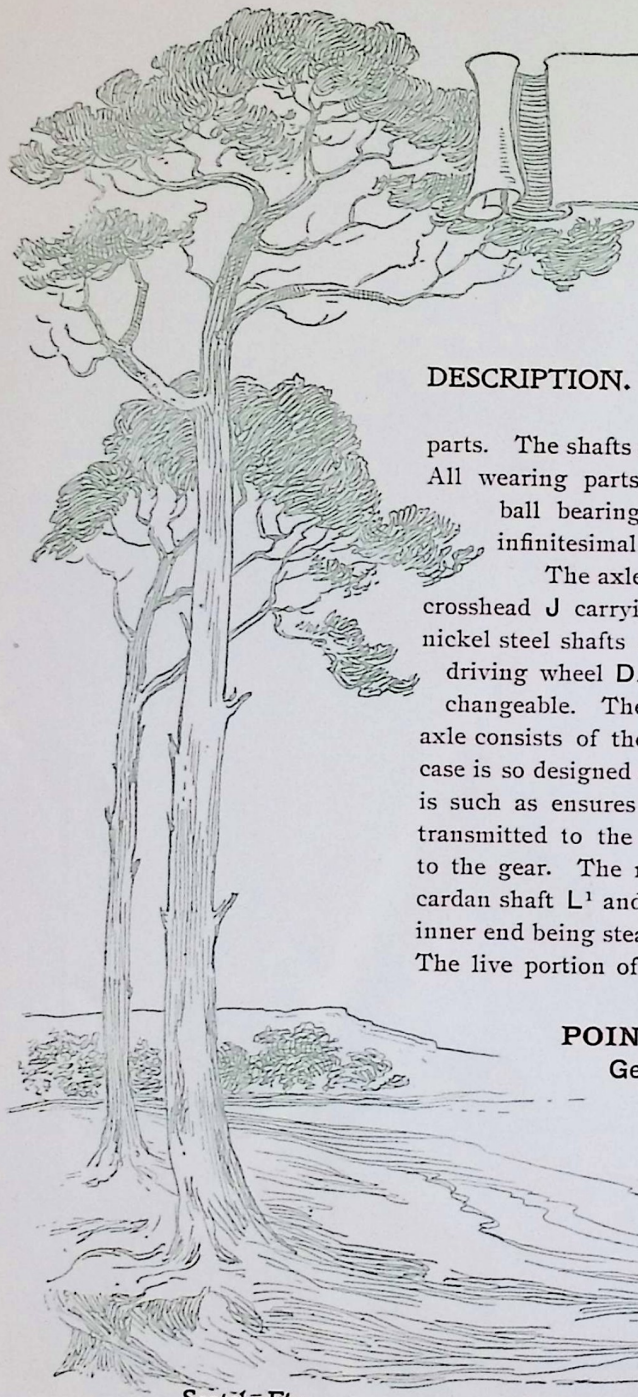
The control levers are most conveniently placed.

The steering pillar is neat in appearance, and free from external moving parts.



A	Steering Gear Case.	I	Throttle Control Tube.
B	,, Worm.	J	,, ,, Ball Levers
C	,, Segment.	K	Ignition Control Tube.
D	Adjusting Sleeve.	L	,, ,, Ball Lever.
E	Steering Lever.	M	Engine Control Quadrant.
F	,, Pillar.	N & N_1	Engine Control Levers
G	,, Wheel.	O	Frame.
H	Outer Tube.	P	Grease Plugs.
		Q	Tube Oil Plug.

Argyll Car Back Axle.



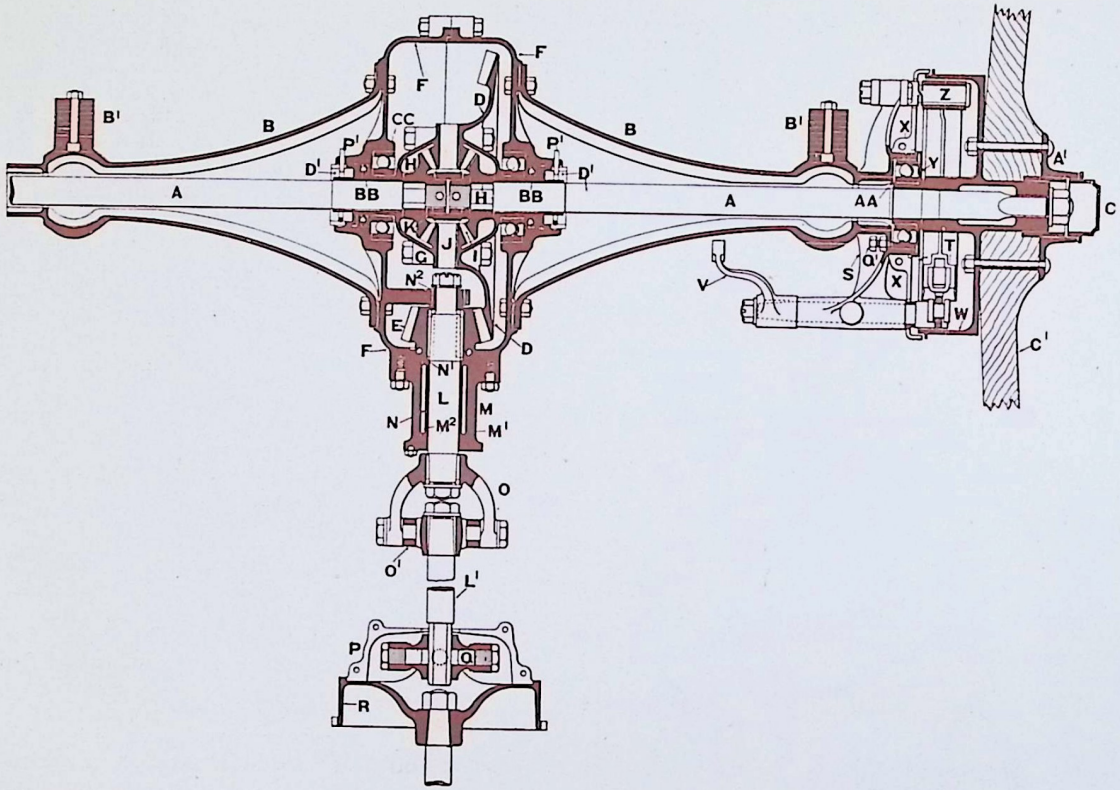
DESCRIPTION. SPECIAL attention has been given to the design of the rear axle of the "Argyll" cars. Each part has been made of ample proportions to resist the worst possible road shocks. Great care has been taken to select the most suitable materials for the various parts. The shafts are made of the finest nickel steel, while the gears, &c., are made of best quality mild steel. All wearing parts are accurately ground to size by special machinery, after having been hardened. The ball bearings provided are large size, and greatly reduce the frictional losses, while their wear is infinitesimal.

The axles A carry the road wheel hubs and the internal brake drums. The differential consists of a crosshead J carrying four differential pinions I, set between the bevel wheels H on the inner ends of the nickel steel shafts A. The whole differential is encased in the steel stamping G, to which is bolted the large driving wheel D. The axle shafts are carried on the four ball bearings A A; these are all alike and interchangeable. The end thrust on the axle is taken by the thrust ball bearings B B. The outer portion of the axle consists of the central case F and the conical tubes B on which the springs B^1 are carried. This outer case is so designed as to be capable of taking any load that may come upon it without yielding; its construction is such as ensures the free running of the driving portions even over the roughest roads, no strains being transmitted to the shafts. A large inspection door in case F, not shown on the drawing, permits of access to the gear. The motion is transmitted to the axle by way of the universal joint in the brake drum R, the cardan shaft L^1 and the second universal joint O. The pinion spindle L is carried on a roller bearing N, the inner end being steadied by the bush N^2. The end thrust of the bevel pinion E is taken by the ball thrust N^1. The live portion of the axle runs in solidified oil, thus preventing wear and lessening noise.

POINTS.—Exceptionally liberal proportions of all parts. Most suitable materials used. Gears large, accurately machined, carefully hardened to resist wear. Bevel pinion well supported on both sides. The ball and roller bearings are fitted in hardened steel cages and run between hardened and ground steel races, so that they are practically unwearable.

Scotch Fir.

Argyll Car Back Axle—Continued.



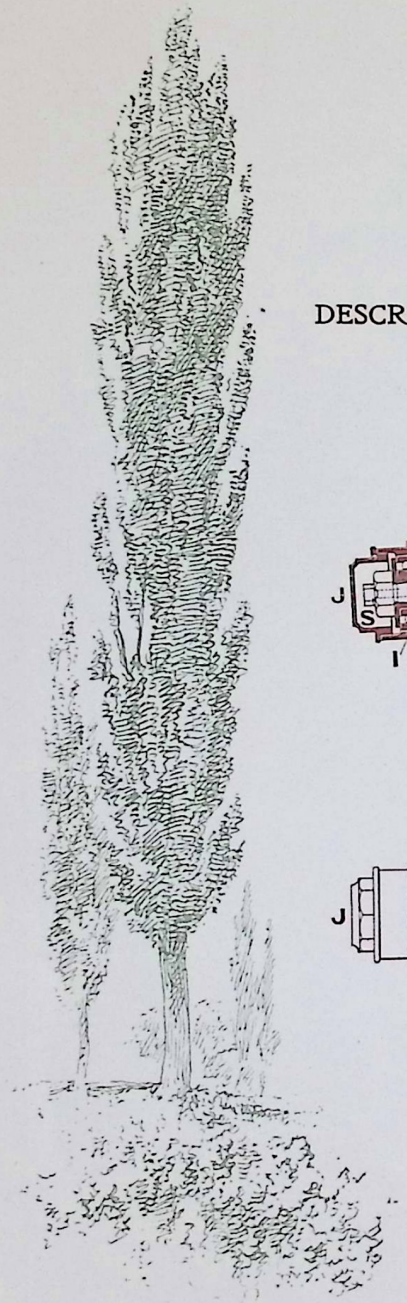
A Axle.
A1 Road Wheel Hub Flange.
B Cone Casing.
B1 Springs.
C Axle Cap
C1 Road Wheel.
D Driven Bevel Wheel.
D1 Ball Thrust Adjusting Ring.
E Driving Pinion.
F ,, Gear Casing.

G Differential Casing.
H Axle Differential Wheel.
I Differential Pinion.
J ,, Crosshead.
K Axle Lock Nut.
L Pinion Spindle.
L1 Driving Shaft.
M Spindle Bearing Casing.
M1 ,, Roller Bearing Outer Sleeve.
M2 ,, ,, ,, Inner ,,

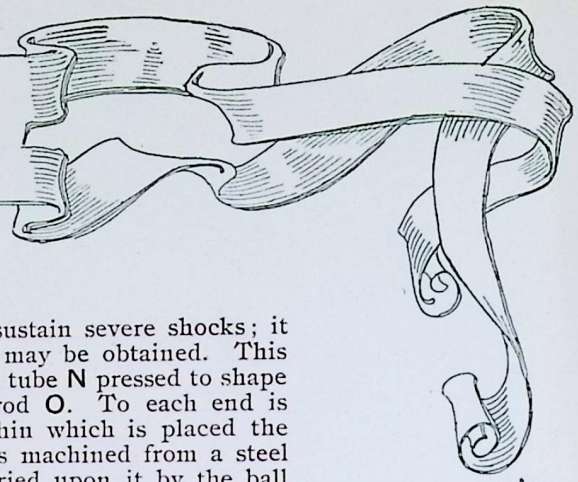
N Spindle Roller Bearing.
N1 Bevel Pinion Thrust Bearing.
N2 Tail Shaft Bottom Bush.
O Universal Fork.
O1 ,, Crosshead.
P ,, Joint Cover.
P1 Ball Race Adjusting Ring Lock.
Q Universal Joint Pin.
Q1 Ball Race Ejecting Screw.
R Foot Brake Drum.

S Hand Brake Bracket.
T ,, ,, Clips.
V ,, Lever.
W ,, ,, Drum.
X ,, ,, Dust Cover.
Y Ball Race Dust Cover.
Z Brake Clip Fulcrum Pin.
AA Outer Ball Race.
BB End Thrust Ball Race.
CC Inner Ball Races.

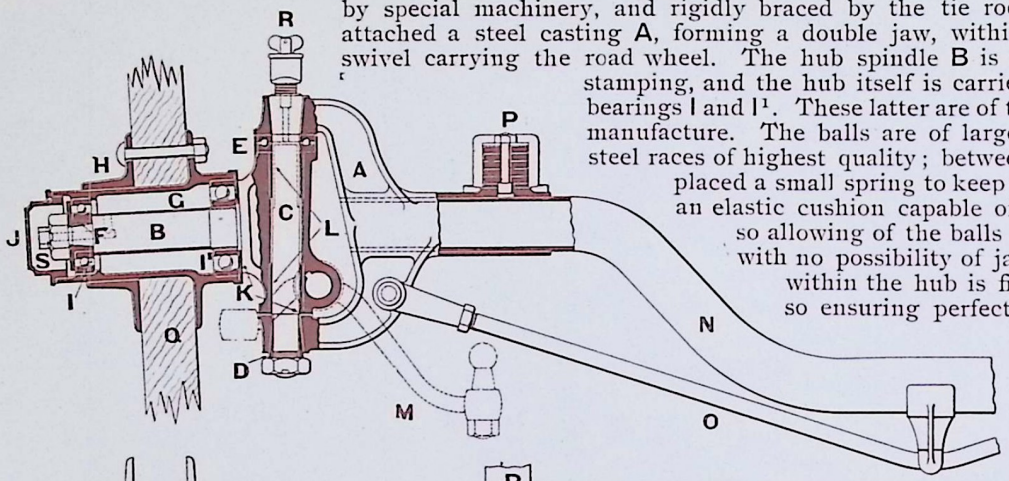
Pollarded Willow: Holland.



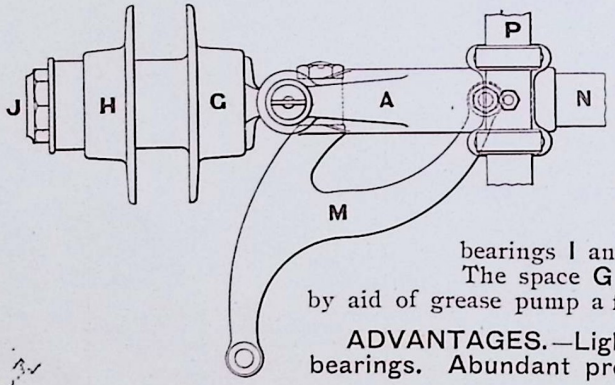
Argyll Car Front Axle.



DESCRIPTION. THE front axle of a car is a very vital part, as it is liable to sustain severe shocks; it must therefore be so designed that the maximum stiffness may be obtained. This is secured without undue weight by the use of a weldless steel tube **N** pressed to shape by special machinery, and rigidly braced by the tie rod **O**. To each end is attached a steel casting **A**, forming a double jaw, within which is placed the swivel carrying the road wheel. The hub spindle **B** is machined from a steel stamping, and the hub itself is carried upon it by the ball bearings **I** and **I**[1]. These latter are of the well-known D.W.M. manufacture. The balls are of large diameter, and run in steel races of highest quality; between each pair of balls is placed a small spring to keep them apart and to form an elastic cushion capable of yielding slightly, and so allowing of the balls revolving more readily with no possibility of jamming. The space **G** within the hub is filled with solidified oil, so ensuring perfect lubrication. A dust-proof cap **K** prevents this oil escaping and takes any side thrust that may come on the wheel.



The swivel movement takes place between the vertical spindle **C** and the swivel **B**, the hardened steel bushes **L** being provided to take the wear. The weight is carried on the ball bearing **E**. Lubrication is provided from **R** by way of a vertical hole and cross oil channels. A cover is provided over the ball race **E** to exclude dust. Any end play in the bearing may be got rid of by tightening the nut on end of swivel **B**, and, if necessary, putting a liner behind the cap **K**. The ball bearings **I** and **I**[1] are lubricated from the reservoir **G** and hub cap **J**. The space **G** ought to be filled up (say every 1000 miles) by injecting by aid of grease pump a fresh supply of lubricant through nozzle and channel **S**.

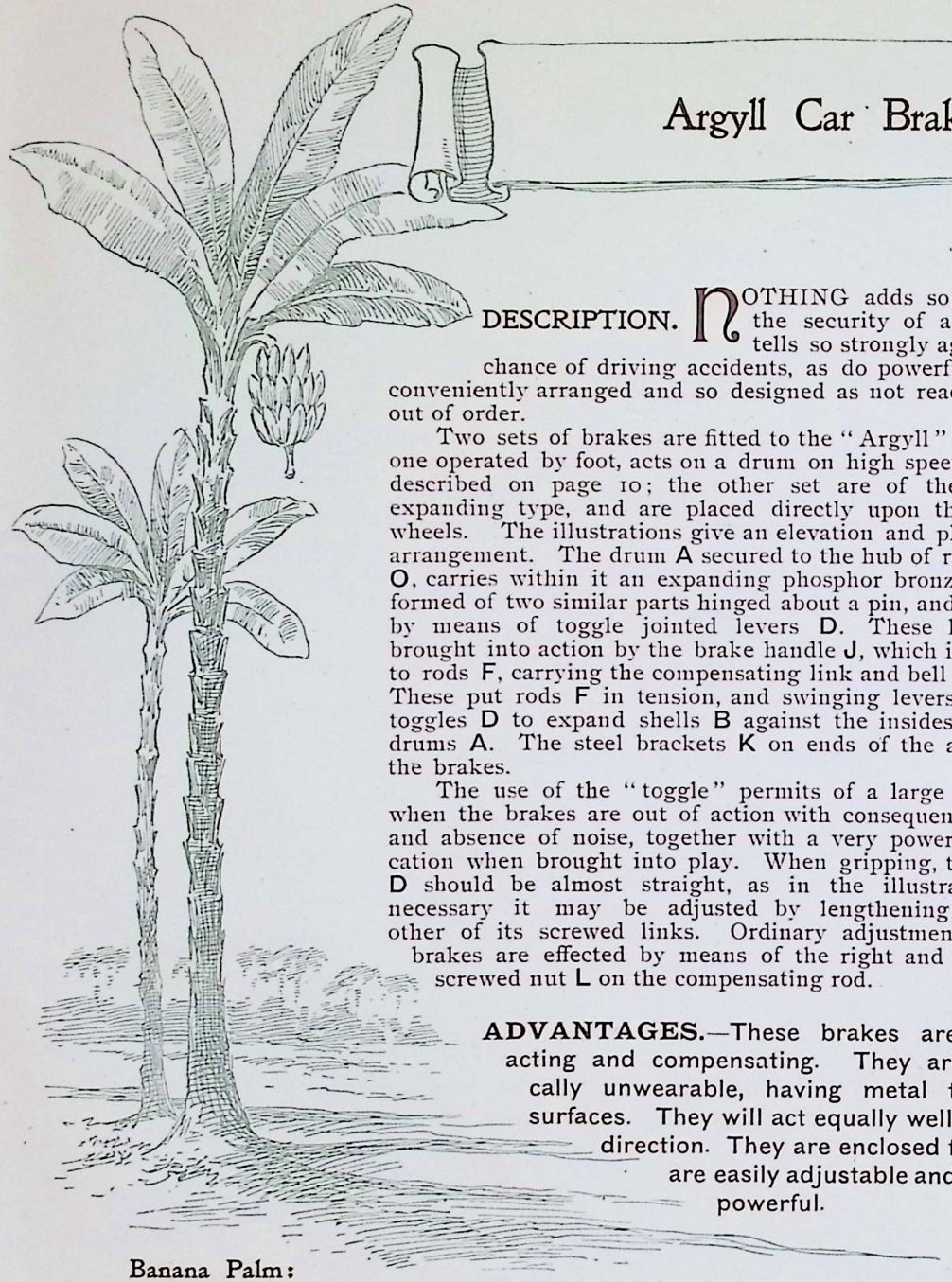


ADVANTAGES.—Light yet stiff design. Road wheels run on large ball bearings. Abundant provision for lubrication. Easy adjustment for wear.

A Axle and Spring Bearing Bracket
B Hub Swivel
C Swivel Pin
D Swivel Pin Adjusting Cone
E Swivel Ball Bearing
F Cone Bush
G Hub
H Hub Flange
I & I[1] Hub Ball Bearings
J Axle Cap
K Dust Proof Cap
L Swivel Hardened Steel Bushes
M Steering Bell Crank
N Axle Tube
O Axle Stay
P Spring
Q Wheel Spokes
R Lubricator
S Extension for Grease Injector

Poplar: France.

Argyll Car Brake Mechanism.



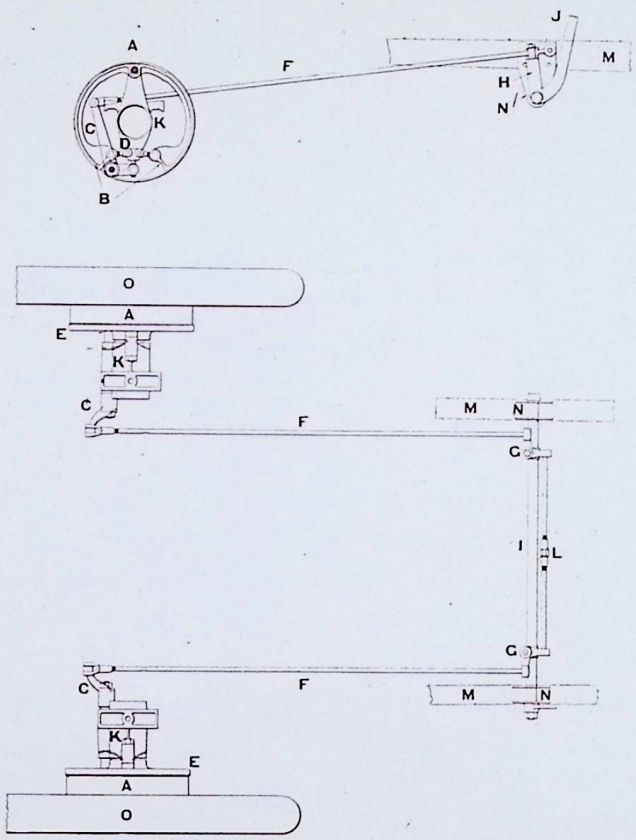
Banana Palm:
West Indies.

DESCRIPTION. NOTHING adds so much to the security of a car, and tells so strongly against the chance of driving accidents, as do powerful brakes, conveniently arranged and so designed as not readily to get out of order.

Two sets of brakes are fitted to the "Argyll" car. The one operated by foot, acts on a drum on high speed shaft, as described on page 10; the other set are of the internal expanding type, and are placed directly upon the driving wheels. The illustrations give an elevation and plan of the arrangement. The drum **A** secured to the hub of road wheel **O**, carries within it an expanding phosphor bronze shell **B** formed of two similar parts hinged about a pin, and operated by means of toggle jointed levers **D**. These levers are brought into action by the brake handle **J**, which is fastened to rods **F**, carrying the compensating link and bell cranks **G**. These put rods **F** in tension, and swinging levers **C** cause toggles **D** to expand shells **B** against the insides of brake drums **A**. The steel brackets **K** on ends of the axle carry the brakes.

The use of the "toggle" permits of a large clearance when the brakes are out of action with consequent freedom and absence of noise, together with a very powerful application when brought into play. When gripping, the toggle **D** should be almost straight, as in the illustration. If necessary it may be adjusted by lengthening one or other of its screwed links. Ordinary adjustments of the brakes are effected by means of the right and left hand screwed nut **L** on the compensating rod.

ADVANTAGES.—These brakes are double acting and compensating. They are practically unwearable, having metal to metal surfaces. They will act equally well in either direction. They are enclosed from dirt, are easily adjustable and are very powerful.

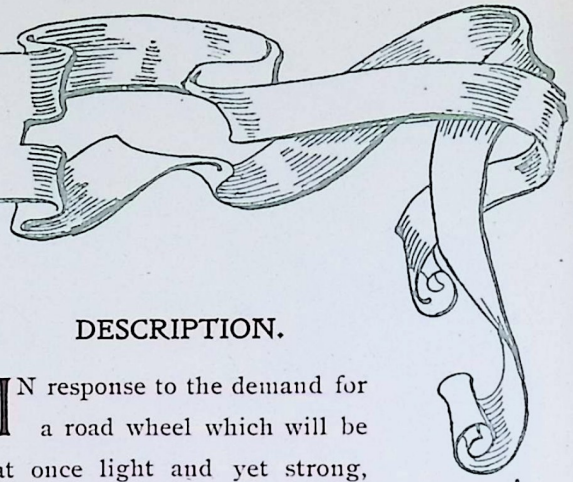


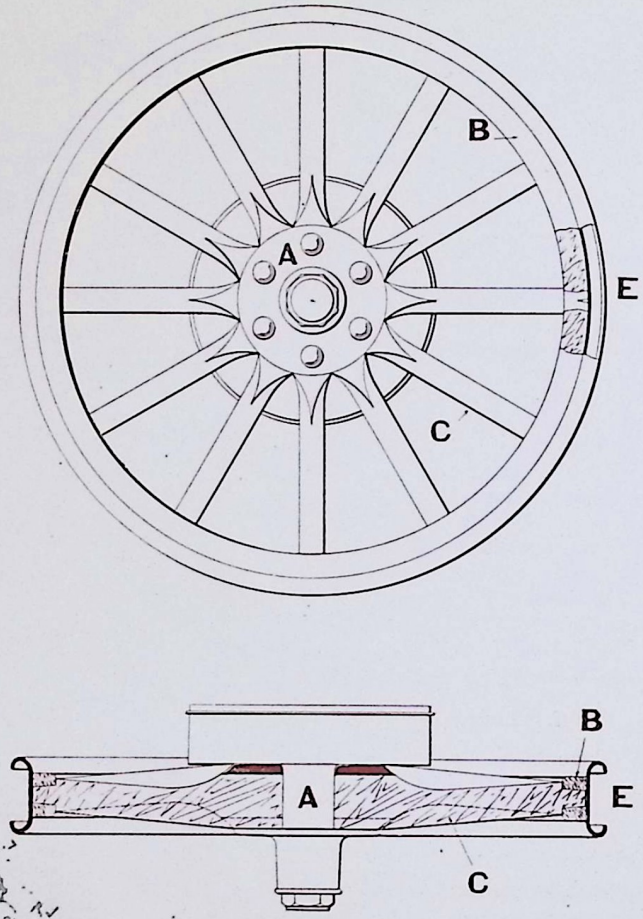
A Brake Drum
B Brake Bands or Shoes
C Actuating Lever
D Brake Band Adjustable Toggle
E Dust Shield
F Compensating Brake Rods
G Compensating Bell Cranks
H Compensating Bell Cranks Pivot Lever
I Brake Shaft
J Brake Hand Lever
K Spring and Brake Carrier Bracket
L Adjusting Coupling
M Frame
N Brake Shaft Bracket
O Road Wheel

Poplar: France.

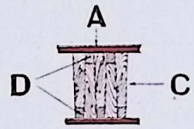
Staggered-Spoke Road Wheel.

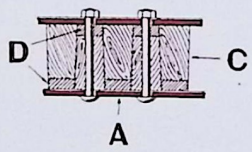
(PATENT DOUBLE-MITRED.)

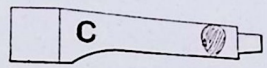




A Iron Hub
B Wheel Felloes
C Spokes, right and left hand
D Fibre Packing between small edge of spokes and rim of wheel
E Steel Tyre of Wheel





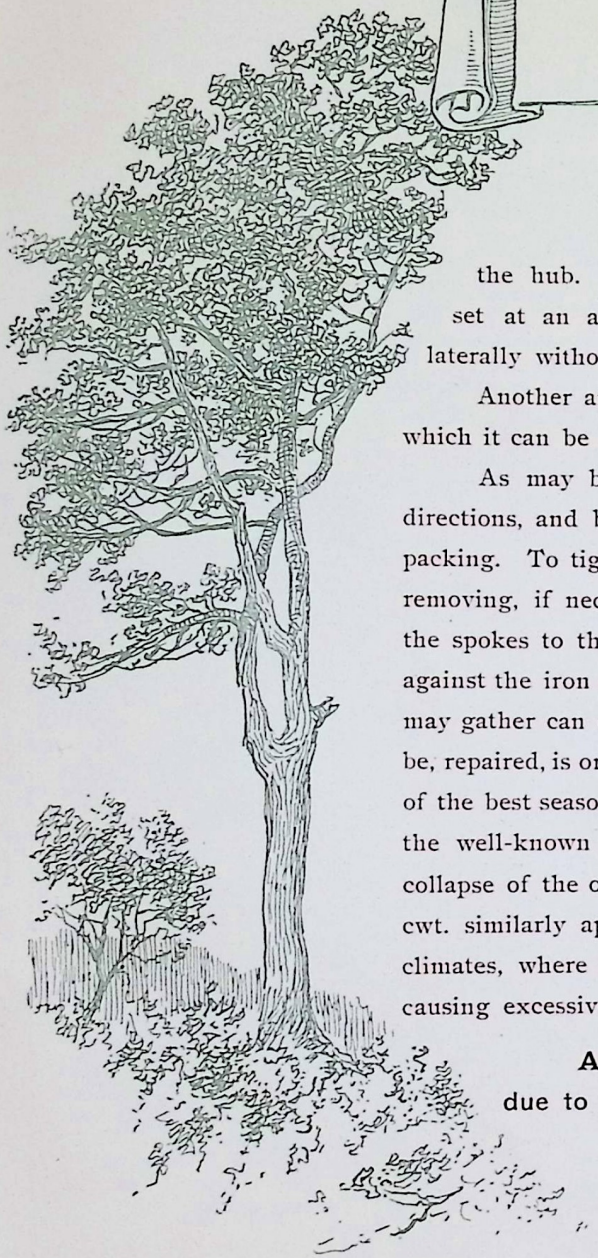


DESCRIPTION.

IN response to the demand for a road wheel which will be at once light and yet strong, especially against collapse laterally, under the stresses due to heavy side-slip or running the car against a kerb, we have adopted our new patent staggered spoke wheel.

The illustration gives a good idea of the general features of this invention. As will readily be seen, the outstanding difference between it and the ordinary road wheel is that the spokes, instead of all being in one plane, are staggered. The end of each spoke is tenoned into the middle of the felloe, but, on approaching the wheel centre, the spokes alternately pass to the right and left of the middle of

Staggered-Spoke Road Wheel—Continued.



Oak: England.

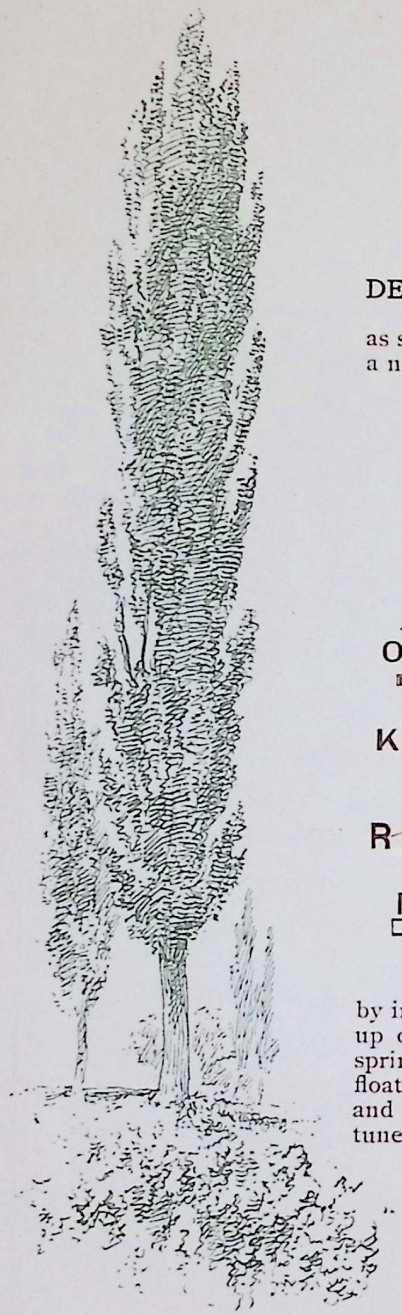
the hub. The result is that the felloes are supported by the two sets of spokes acting as struts, set at an angle against each other, so making it impossible for the felloe to become displaced laterally without breaking one set.

Another and important advantage secured by the use of this design of wheel is the facility with which it can be tightened up should it slacken due to shrinkage of the timber.

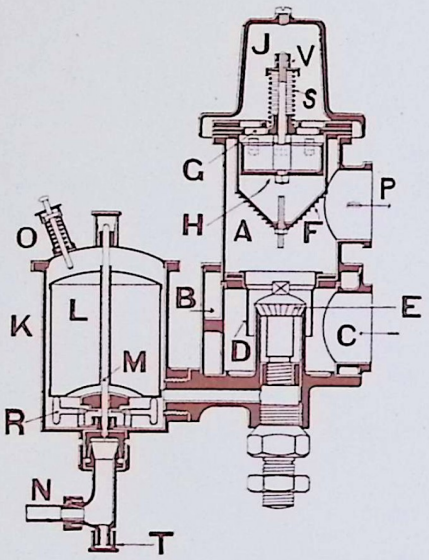
As may be observed from the detail of the jointing, the ends of the spokes are mitred in opposite directions, and between the thin edge of each spoke and the flange of the hub is placed a piece of fibre packing. To tighten the wheel, therefore, all that is necessary is to draw the hub flanges closer together, removing, if necessary, a little of the fibre packing. The effect of this is to slightly lessen the angle of the spokes to the vertical, and thereby increase their effective length, so tightening the spokes and felloes against the iron rim. In the common form of artillery wheel this is quite impossible, and any slackness that may gather can only be got rid of by rebuilding. The ease with which this wheel can be tightened, or, if need be, repaired, is one of its strong points which is sure to commend it to all motorists. These wheels are built of the best seasoned oak spokes and ash felloes, and have been tested by Messrs. Kirkaldy & Sons, London, the well-known experts in strengths of material, who report that, while the average lateral load causing collapse of the ordinary artillery type wheel as formerly fitted was 31 cwt., the new wheel stood a load of 69 cwt. similarly applied before giving way. These wheels are of special utility for cars to be used in hot climates, where difficulty is experienced in preventing ordinary wheels from giving out, owing to the heat causing excessive shrinkage.

ADVANTAGES.—Great lateral strength, and consequently little liability to collapse due to severe side-slip. Ease of repair.

Argyll Car Carburettor.



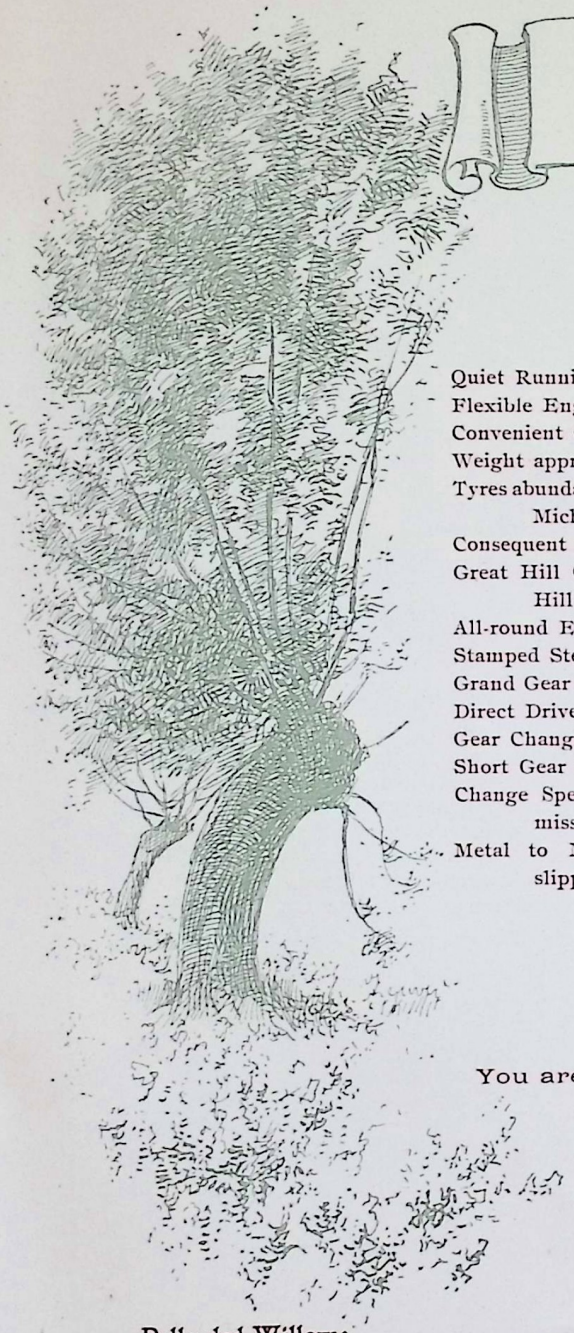
DESCRIPTION. THE function of the Carburettor is to provide to the engine in correct quantity and of proper quality a mixture of petrol vapour and air. Experience has demonstrated the great merit of the Longuemare type, and this Carburettor is in consequence adopted as standard on the "Argyll" cars. The apparatus consists of a float chamber K containing a float L, acting on a needle valve M through two balance levers R. The petrol is supplied by pipe N, and the float is so arranged that the level of the petrol in the float chamber stands at the same height as the petrol nipple E in the base of the carburettor chamber A. This chamber communicates by pipes attached to opening P with engine cylinders. When an inlet valve opens its piston descending creates a partial vacuum in chamber A, the petrol then flows through the small sprays in petrol nipple E, in doing so it meets and mixes with the air which has been entering at C. This air is guided by choke ring D so as to intimately mix with the petrol spray. This mixture is further broken up and more completely mixed by coming in contact with the serrated cone F. When the engine is running fast the vacuum created in chamber A is greater than when it is running slow. Were suitable provision not made to compensate for this, a greater quantity of petrol compared with the air would be sucked up, and a mixture too rich for proper going would result. This, however, is prevented by the opening of another or auxiliary air supply. In the older types of carburettor this was done by hand, in this type it is done automatically. The increased suction of the engine acts on the piston H and causes it to descend against the pressure of the spring S, so opening a series of ports and allowing a supply of pure air to pass into the chamber A and counterbalance the increased suction of the engine. Around the base of the carburettor a chamber B is arranged in which circulates a small portion of the hot exhaust gases, so warming up the petrol and air and thus aiding the carburation of the petrol. The quantity of petrol and thus the quality of the mixture supplied by the carburettor can be adjusted by increasing or decreasing the area of the slots in the nipple E. To decrease the area the easiest way is to fill up one or more of the slots with soft solder. Adjustment of the mixture is also obtained by means of the spring S and adjusting nuts V. To give more air and less petrol ease these nuts a little, and *vice versa*. The float agitator O is provided to give a rich mixture for easy starting of the engine. A draw-off cock T is fitted, and is useful for the removal of any dirt that may find its way to the carburettor. Each carburettor is carefully tuned to the engine to which it is fitted, and should not be altered so long as it works satisfactorily.



A Carburettor Chamber.
B Hot Air Chamber.
C Air Intake.
D Choke Ring.
E Petrol Nipple.
F Spray Cone.
G Automatic Air Inlet Valve.
H Piston for Valve G.
J Cover for Automatic Valve.
K Float Chamber.
L Float.
M Needle Valve.
N Petrol Inlet.
O Float Agitator.
P Induction Pipe.
R Balance Levers.
S Spring.
T Drain Cock.
V Spring Adjusting Nuts.

Poplar: France.

Points about Argylls.



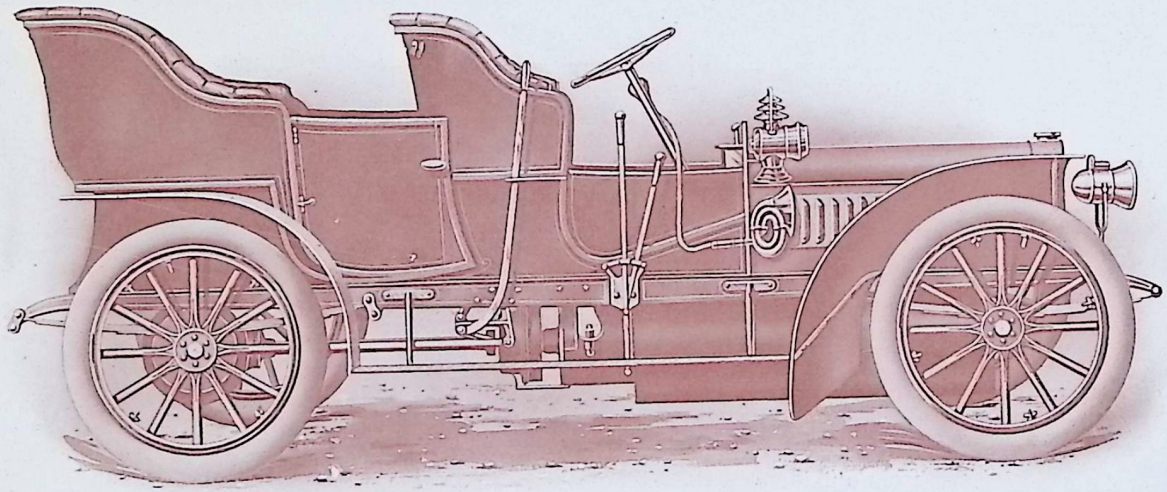
Pollarded Willow: Holland.

Quiet Running.
Flexible Engines.
Convenient Control.
Weight approximately, 1 cwt. per B.H.P.
Tyres abundantly heavy. 10/12 H.P. is fitted with 810$^{m}/_{m}$ × 90$^{m}/_{m}$ Michelin or Continental Pneumatics.
Consequent freedom from "Tyre Troubles."
Great Hill Climbing Powers. Argylls hold Gold Medal for Hill Climbing.
All-round Efficiency.
Stamped Steel Frame of Patent Design.
Grand Gear Box—absolutely unique in design (Govan Patent).
Direct Drive on Top Speed.
Gear Changing by Clutches on High Speeds.
Short Gear Shafts, obviating spring and chatter.
Change Speed Levers so arranged that it is impossible to miss a gear. No notches to feel for.
Metal to Metal Clutch running in oil, so permitting of slipping taking place without doing damage.
Universal Joint between Engine and Gear Box, which prevents any chance of strains arising in Bearings due to distortion of Frame.
Rear Axle running on hardened steel Bearings.
Axle Gear Case arranged to give easy access to Driving Gear.
Gears of ample proportions, accurately machined.
Metal to Metal Brakes, easily adjustable, very powerful, arranged to hold in either direction.
Road Wheels of exceptional strength against lateral collapse due to stresses set up by side slip.
Best selected materials.
All parts of mechanism interchangeable.
Coachwork both comfortable and elegant.
Every Car on completion is tested on the road by an expert before being despatched.
A stock of Spare Parts is always in hand, and replacements can be made at once.
A separate Repair Department specially equipped is at the disposal of our Clients.

You are heartily invited to visit our Works, where every part of our Cars can be seen in the process of manufacture, and Trial Runs may be given.

26-30 H.P. Argyll Car.

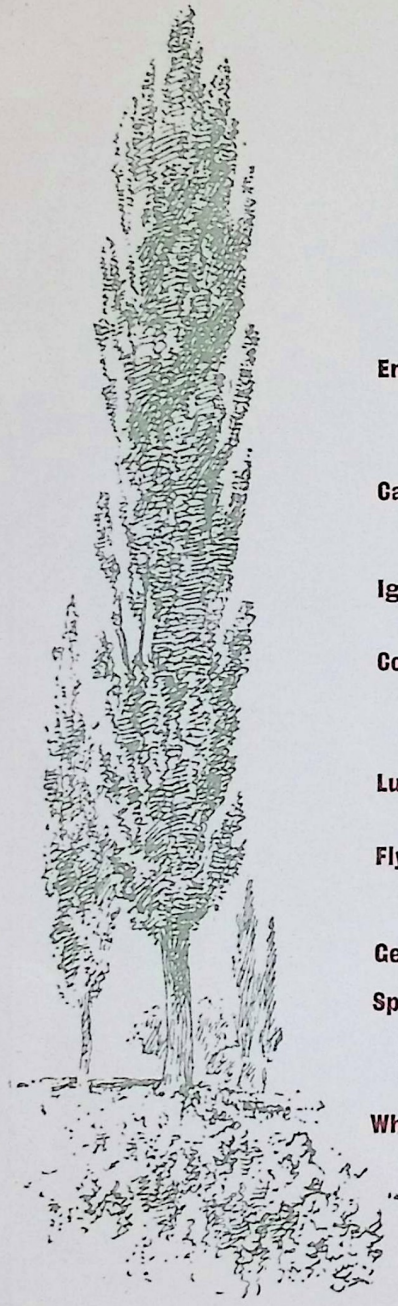
(FOUR CYLINDER.)



STANDARD SIDE ENTRANCE CARRIAGE.

Price, = = £750

Palm Tree:
Egypt and India.



Poplar: France.

16-20 H.P. Argyll Car.

SPECIFICATION.

Engine.—Aster, four cylinders, 95 m/m bore × 130 m/m stroke, cylinders cast separately; inlet and exhaust valves on opposite sides, mechanically operated. 22 B.H.P.

Carburettor.—Standard Longuemare with automatic attachment, or new patent automatic Dunlop carburettor.

Ignition.—High tension with accumulators. High tension Magneto may be fitted at an extra charge.

Cooling.—Specially designed honeycomb radiator built with fluted tubes, giving large cooling surface, and fitted with pump and powerful fan, obviating the need for any other water tank.

Lubrication.—On the splash system, with pressure drip feed to main bearings.

Fly Wheel and Clutch.—Combined new patent metal to metal clutch running in oil. Easily adjustable from outside.

Gearing.—Govan Patent.

Speeds.—8¾, 17½, and 35 miles per hour when the engine is running at 1100 revolutions per minute. This may be accelerated to upwards of 40 miles per hour.

Wheels.—Patent Artillery pattern, 34″ diameter, built with staggered spokes to give the greatest possible lateral stability.

Tyres.—Michelin or Continental, 875 m/m × 105 m/m. This size gives an exceptionally large tyre area and strength for the weight of the car, and overcomes any objection which can be raised to the use of pneumatics. Any other type to order.

Wheel Base.—9′ 0″; wheel track, 4′ 1¼″; overall width, 5′ 3″; overall length, 13′ 0″.

Steering.—Enclosed lock, irreversible pattern.

Back Axle.—Enclosed live axle. Bearings are made of the finest steel, carefully ground and hardened; gears all machine cut.

Front Axle.—Built up front axle rigidly stayed. Hubs run on large ball bearings.

Frame.—Pressed steel, patent design.

Body.—Standard pattern side entrance Roi-des-Belges of specially stamped sheet metal, fitted with doors to front seats, superbly finished with high-class fittings, upholstered in leather, furnished with set of best paraffin lamps, pair of rubber mats, horn, two spare exhaust valves and two spare inlet valves, complete set of spanners, set of spare bolts and nuts, oil cans, fillers, tyre inflator and tyre repair outfit, grease injector, jack, and spare accumulator.

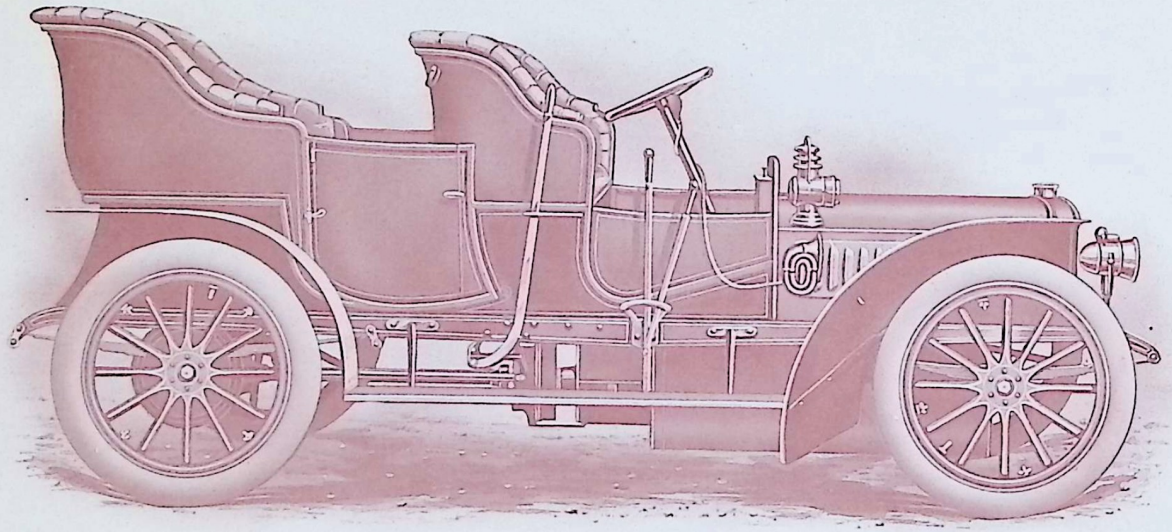
Weight.—Approximately, 18 cwt.

Price.—Side entrance, **£550.**

Fitted with Magneto,	- - -	**£25** extra.
Do. Canvas Hood,	- -	**26** ,,
Do. Canopy and Glass Front,		**36** ,,
Glass Wind Screen,	- - -	**5** ,,

16-20 H.P. Argyll Car.

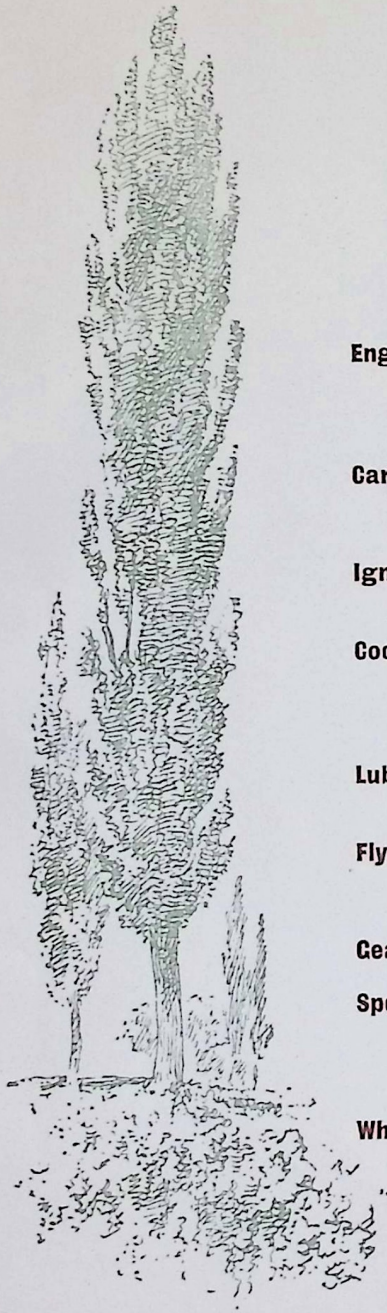
(FOUR CYLINDER.)



STANDARD SIDE ENTRANCE CARRIAGE.

Price, - - £550

Banana Palm:
West Indies.



Poplar: France.

14-16 H.P. Argyll Car.

SPECIFICATION.

Engine.—"Argyll," four cylinders, cast separately, governed on inlet. $90^{m}/_{m}$ bore × $120^{m}/_{m}$ stroke. 18 B.H.P. Fitted with mechanically operated valves.

Carburettor.—Standard Longuemare, with automatic attachment, or new patent automatic Dunlop carburettor.

Ignition.—High tension with accumulators. High tension Magneto may be fitted at an extra charge.

Cooling.—Specially designed honeycomb radiator built with fluted tubes, giving large cooling surface, and fitted with pump and powerful fan, obviating the need for any other water tank.

Lubrication.—On the splash system, with pressure drip feed to main bearings.

Fly Wheel and Clutch.—Combined new patent metal to metal clutch running in oil. Easily adjustable from outside.

Gearing.—Govan Patent.

Speeds.—7½, 15, and 30 miles per hour when the engine is running at 1100 revolutions per minute. This may be accelerated to upwards of 35 miles per hour.

Wheels.—Patent Artillery pattern, 32″ diameter, built with staggered spokes to give the greatest possible lateral stability.

Tyres.—Michelin or Continental, $810^{m}/_{m}$ × $90^{m}/_{m}$. This size gives an exceptional tyre area and strength for the weight of the car, and overcomes any objection which can be raised to the use of pneumatics. Any other type to order.

Wheel Base.—8′ 4″; track, 4′ 1¼″; total length, 12′ 4″; total width, 5′ 3″.

Steering.—Enclosed lock, irreversible pattern.

Back Axle.—Enclosed live axle. Bearings are made of the finest steel, carefully ground and hardened; gears all machine cut.

Front Axle.—Built up front axle rigidly stayed. Hubs run on large ball bearings.

Frame.—Pressed steel, patent design.

Body.—Standard pattern side entrance Roi-des-Belges of specially stamped sheet metal, fitted with doors to front seats, superbly finished with high-class fittings, upholstered in leather, furnished with set of best paraffin lamps, pair of rubber mats, horn, two spare exhaust valves and two spare inlet valves, complete set of spanners, set of spare bolts and nuts, oil cans, fillers, tyre inflator and tyre repair outfit, grease injector, and lifting jack.

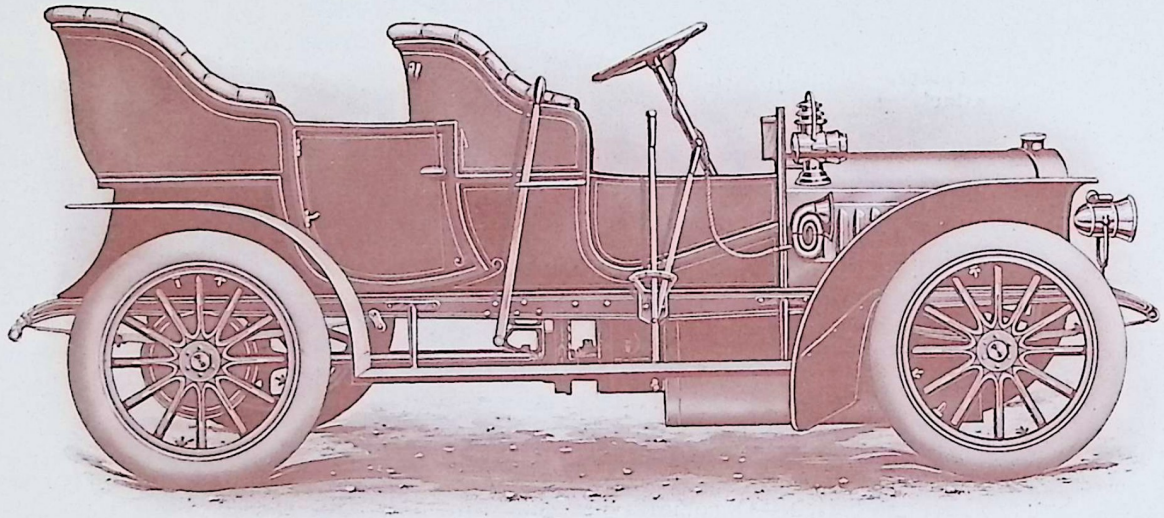
Weight.—Approximately, 17 cwt.

Price.—£475.

Fitted with Magneto, - - - -	**£25**	extra.
Do.	Canvas Hood, - - -	**22**	,,
Do.	Canopy and Glass Front, -	**32**	,,
Do.	Glass Wind Screen, - -	**5**	,,

14-16 H.P. Argyll Car.

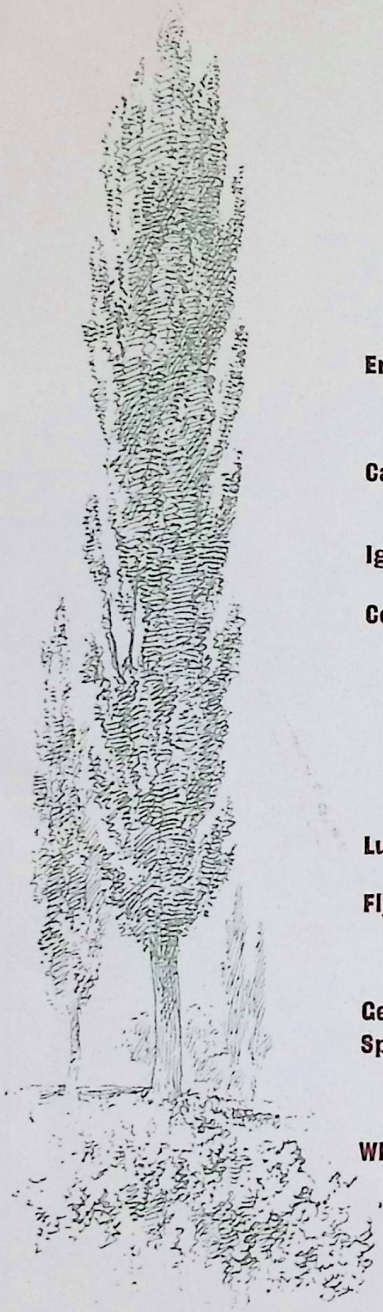
(FOUR CYLINDER.)



STANDARD SIDE ENTRANCE CARRIAGE.

Price, = = £475

Scotch Fir.



10-12 H.P. Argyll Car.

SPECIFICATION.

Engine.—Aster, two cylinders, 95 m/m bore × 140 m/m stroke, cylinders cast separately, inlet and exhaust valves on opposite sides, mechanically operated. 14 B.H.P.

Carburettor.—Standard Longuemare with automatic attachment, or new patent automatic Dunlop carburettor.

Ignition.—High tension with accumulator. High tension Magneto may be fitted at an extra charge.

Cooling.—Specially designed honeycomb radiator built with fluted tubes, giving large cooling surface, and fitted with powerful fan, obviating the need for any other water tank. No pump is required, as the radiator is designed to act on the thermo-syphon system. The efficiency of this arrangement was demonstrated by driving one of our cars through the 1000 miles trial held by the Automobile Club without adding a drop of water.

Lubrication.—On the splash system, with pressure drip feed to main bearings.

Fly Wheel and Clutch.—Of conical type, male portion leather lined; self contained and so arranged that it all turns together and puts no end thrust on the bearings; easily adjustable from the outside.

Gearing.—Govan Patent.

Speeds.—6½, 13, and 26 miles per hour when the engine is running at 1100 revolutions per minute. This may be accelerated to upwards of 30 miles per hour.

Wheels.—Patent Artillery pattern, 32″ diameter, built with staggered spokes to give the greatest possible lateral stability.

Tyres.—Michelin or Continental, 810 m/m × 90 m/m. This size gives an exceptionally large tyre area and strength for the weight of the car, and overcomes any objection which can be raised to the use of pneumatics. Any other type to order.

Wheel Base.—Side entrance, 7′ 9″; Tonneau, 6′ 3″; track, 4′ 1¼″; total length, side entrance, 11′ 6″; Tonneau, 10′ 3″; total width, 5′ 3″.

Steering.—Enclosed lock, irreversible pattern.

Back Axle.—Enclosed live axle. Bearings are made of the finest steel, carefully ground and hardened; gears all machine cut. Differential case split horizontally, so allowing of very easy access to gears for examination.

Front Axle.—Built up front axle rigidly stayed. Hubs run on large ball bearings.

Frame.—Pressed steel, patent design.

Body.—Standard pattern side entrance Roi-des-Belges of specially stamped sheet metal, superbly finished with high-class fittings, upholstered in leather, furnished with set of best paraffin lamps, pair of rubber mats, horn, one spare exhaust valve and one spare inlet valve, complete set of spanners, set of spare bolts and nuts, oil can, fillers, tyre inflator and tyre repair outfit, grease injector, and lifting jack.

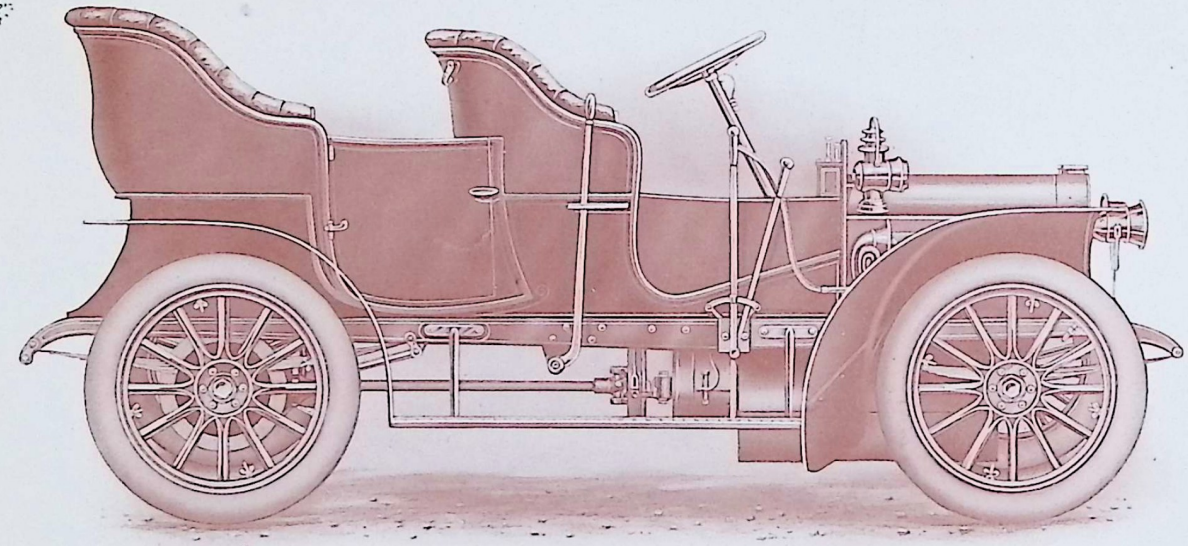
Weight.—Approximately, Tonneau, 14½ cwt.; side entrance, 16 cwt.

Price.—Side entrance, **£380.** Tonneau, **£350.**

Fitted with Pump,-	- - -	**£5**	extra.
Do.	Magneto, - - -	**22/10**	,,
Do.	Canopy and Glass Front,	**30**	,,
Do.	Canopy and Hood, -	**20**	,,
Do.	Glass Wind Screen, -	**5**	,,

10-12 H.P. Argyll Car.

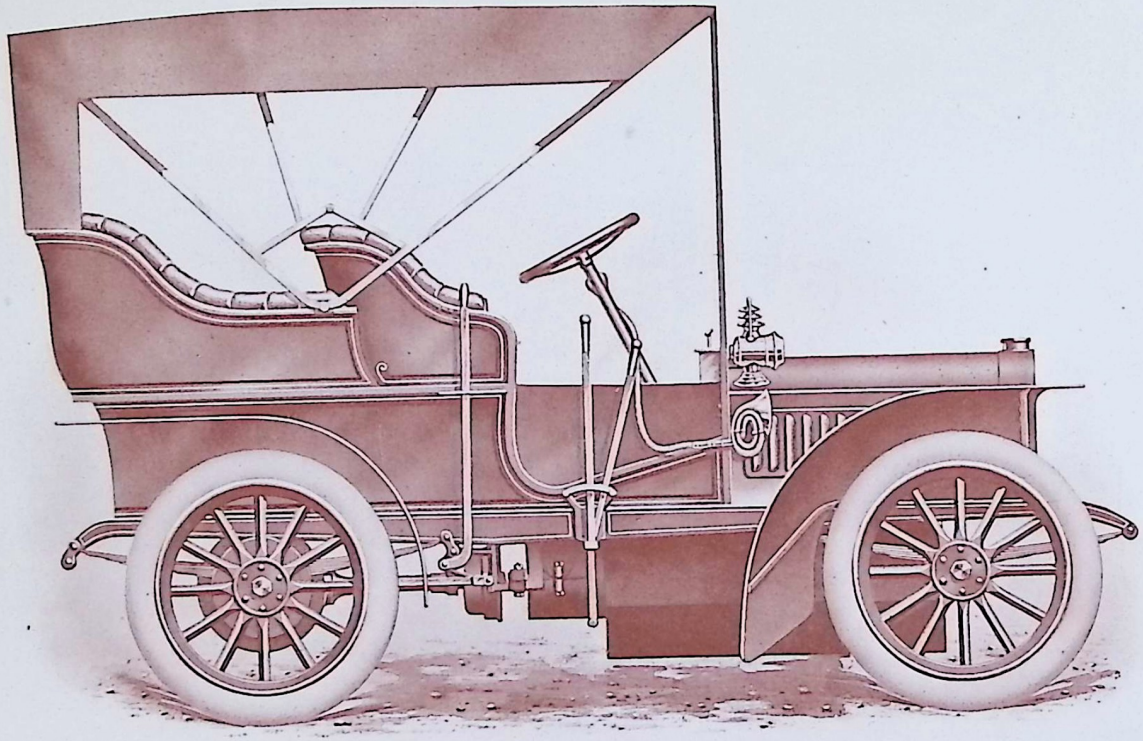
(TWO CYLINDER.)



STANDARD SIDE ENTRANCE CARRIAGE.

Price, = = £380

10-12 H.P. Argyll Tonneau Car.



FITTED WITH HOOD.

Price, = = £350

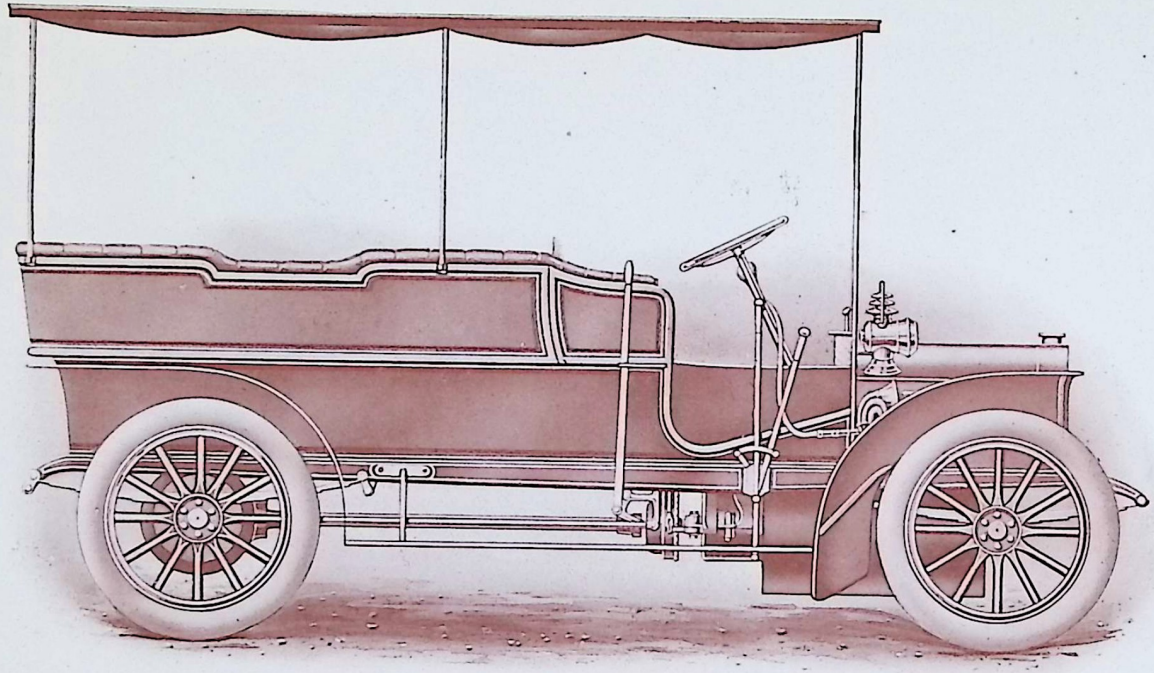
Fitted with Hood, £15 extra; with Glass Screen, £5 extra.

Pollarded Willow:
Holland.

Poplar: France.

Argyll Wagonet.

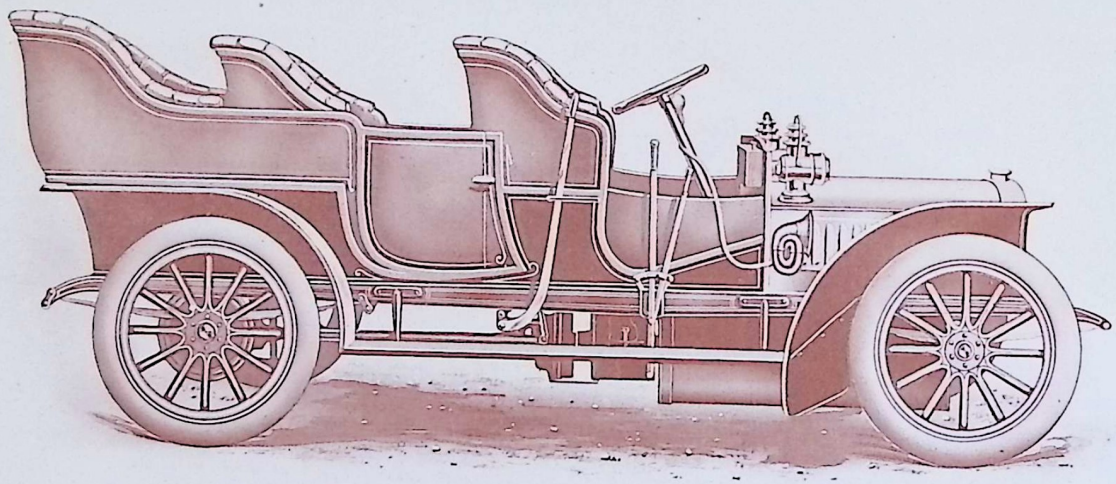
(TWO OR FOUR CYLINDER.)



	10-12 H.P.	14-16 H.P.	16-20 H.P.	26-30 H.P.
Engine,				
Wheel Base.	9′ 9″	9′ 9″	9′ 9″	10′ 0″
Wheel Track,	4′ 1¾″	4′ 1¾″	4′ 1¾″	4 6″
Total Length,	12′ 9″	13′ 6″	13′ 6″	14′ 0″
Total Breadth,	5′ 3″	5′ 3″	5′ 3″	5′ 6″
Weight,	18 cwt.	19 cwt.	21 cwt.	23 cwt.
Seating Capacity inside,	8	8	8	8
Top Gear in miles per hour,	18	18	20	25
Price,	**£390**	**£490**	**£590**	**£790**
Canopy, with Wind Screen, extra,	**£30**	**£32**	**£35**	**£40**

Seven Seated Side Entrance Argyll Car.

As supplied for the use of T.R.H. the Prince and Princess of Wales
for their Tour in India.

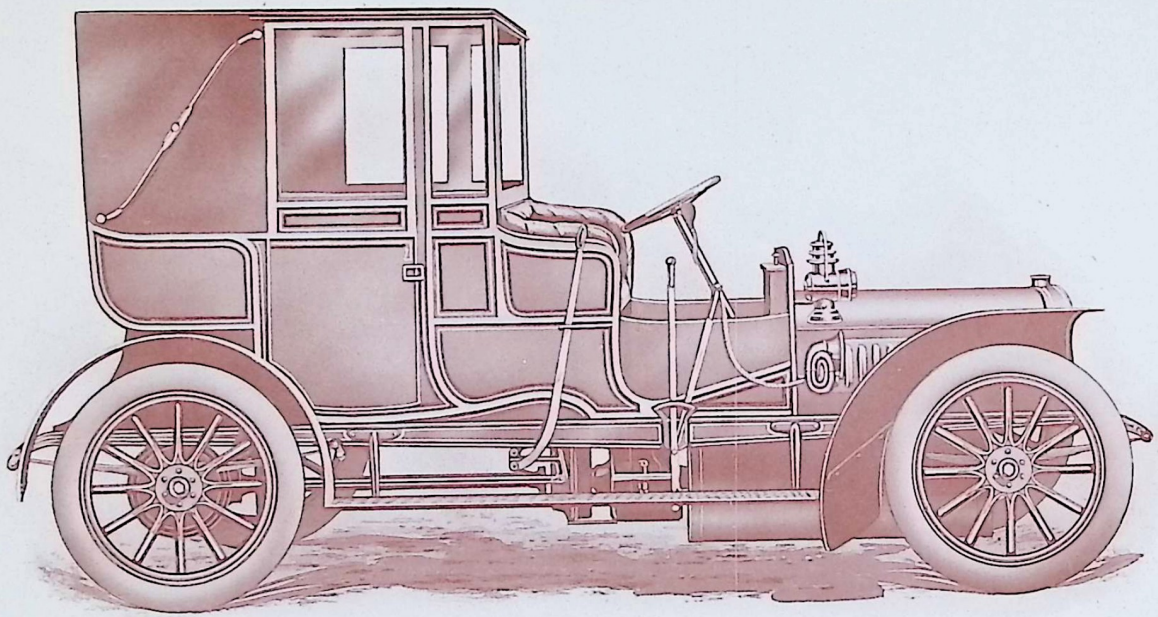


Engine,	16-20 H.P.	26-30 H.P.
Wheel Base,	9′ 9″	10′ 0″
Wheel Track,	4′ 1¼″	4′ 6″
Total Length,	13′ 6″	14′ 0″
Total Breadth,	5′ 3″	5′ 6″
Weight,	20 cwt.	23 cwt.
Seating Capacity inside,	5	5
Top Gear in miles per hour,	26	26
Price,	**£600**	**£800**

Palm Tree:
Egypt and India.

Argyll Double Landaulet.

(FOUR CYLINDER.)

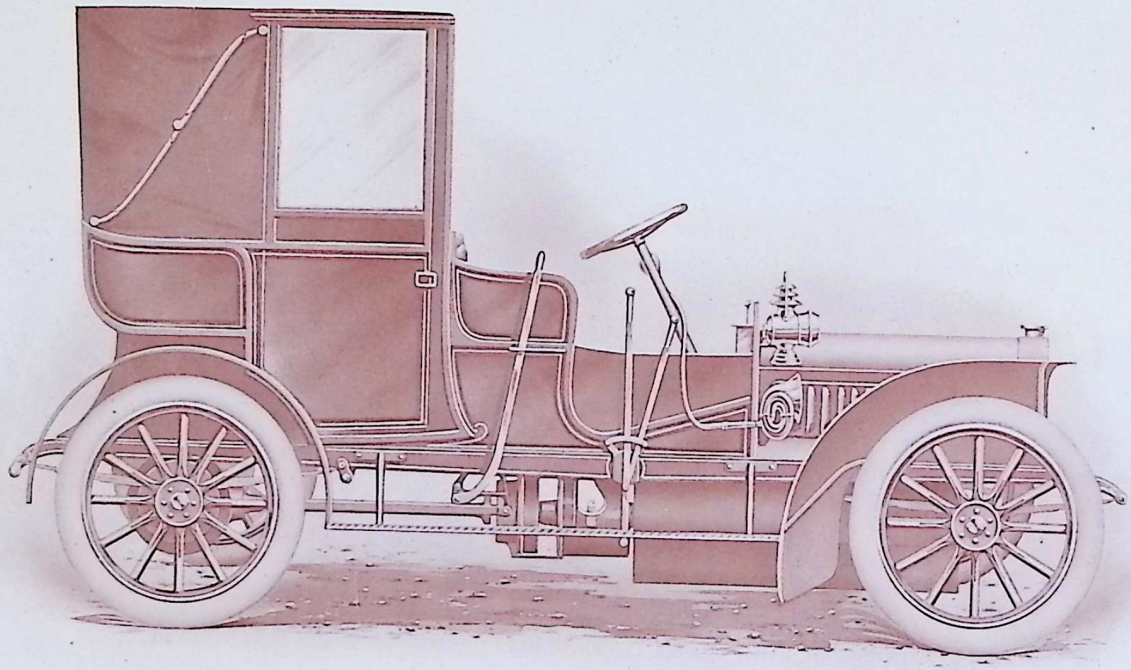


	16-20 H.P.	26-30 H.P.
Engine,		
Wheel Base,	9′ 9″	10′ 0″
Wheel Track,	4′ 1¼″	4′ 6″
Total Length,	13′ 6″	14′ 0″
Total Breadth,	5′ 3″	5′ 6″
Total Height,	7′ 3″	7′ 4″
Weight,	23 cwt.	25 cwt.
Seating Capacity inside,	4	4
Top Gear in miles per hour,	26	26
Price,	**£690**	**£900**

Banana Palm:
West Indies.

Argyll Single Landaulet.

(TWO AND FOUR CYLINDER.)

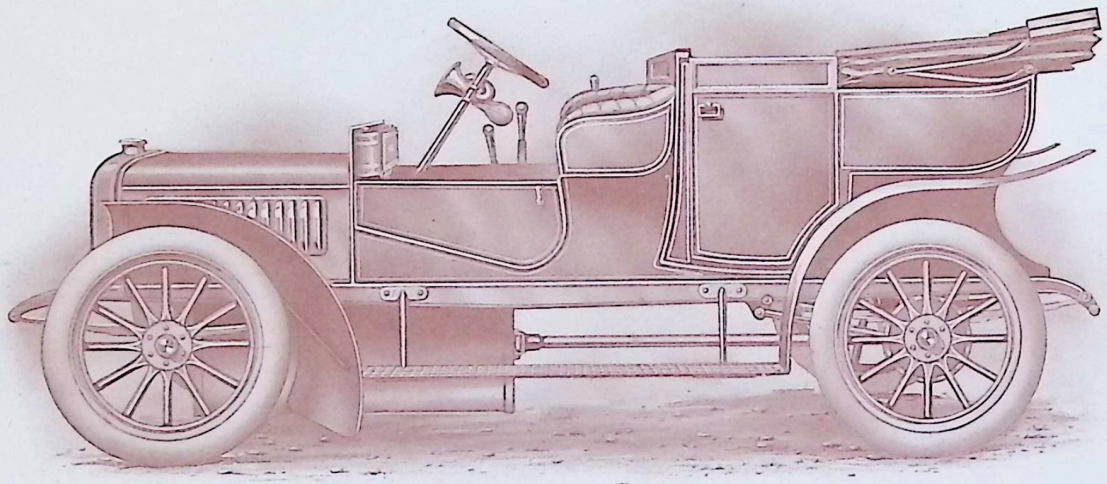


CLOSED.

Birch: Wales.

Argyll Single Landaulet.

(TWO AND FOUR CYLINDER.)



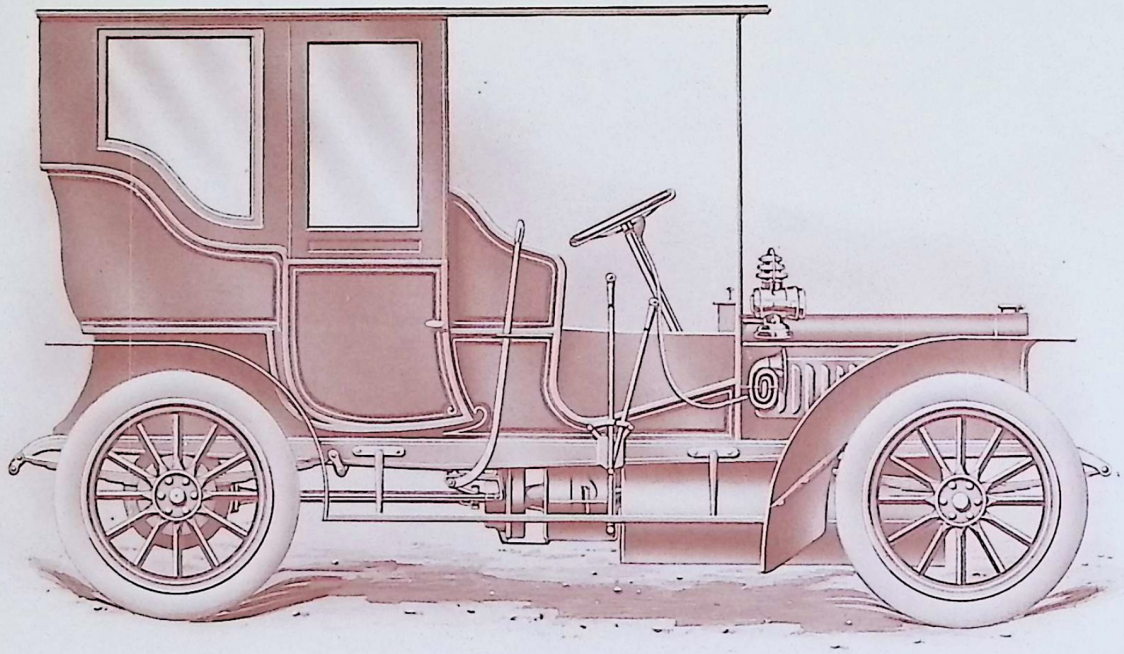
OPEN.

Engine, - - -	10-12 H.P.	14-16 H.P.	16-20 H.P.	26-30 H.P.
Wheel Base, - - -	8′ 0″	8′ 7″	9′ 0″	9′ 8″
Wheel Track, - - -	4′ 1¼″	4′ 1¼″	4′ 1¼″	4′ 6″
Total Length, - -	12′ 0″	12′ 7″	13′ 0″	13′ 10″
Total Breadth, - -	5′ 3″	5′ 3″	5′ 3″	5′ 6″
Total Height, - - -	7′ 2″	7′ 2″	7′ 3″	7′ 4″
Weight, - - -	18 cwt.	19 cwt.	21 cwt.	23 cwt.
Seating Capacity inside, -	2	2	2	2
Top Gear in miles per hour,	23	23	28	28
Price,	**£450**	**£550**	**£640**	**£850**

Oak: England.

Argyll Brougham (with Detachable Top).

(FOUR CYLINDER.)

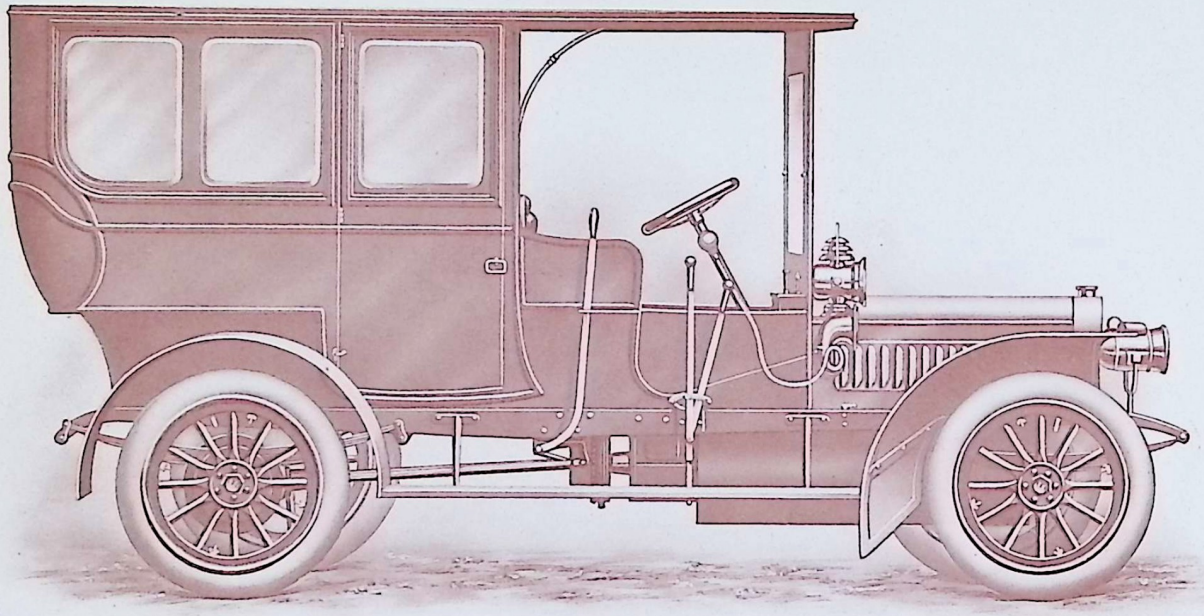


Engine,	10-12 H.P.	14-16 H.P.	16-20 H.P.	26-30 H.P.
Wheel Base,	7′ 9″	8′ 4″	9′ 0″	9′ 3″
Wheel Track,	4′ 1¼″	4′ 1¼″	4′ 1¼″	4′ 6″
Total Length,	11′ 6″	12′ 3″	13′ 0″	13′ 3″
Total Breadth,	5′ 3″	5′ 3″	5′ 3″	5′ 6″
Total Height,	7′ 2″	7′ 2″	7′ 3″	7′ 4″
Weight,	17 cwt.	18 cwt.	19½ cwt.	22 cwt.
Seating Capacity inside,	3	3	3	3
Top Gear in miles per hour,	23	23	28	28
Price,	**£445**	**£540**	**£625**	**£825**

Pollarded Willow: Holland.

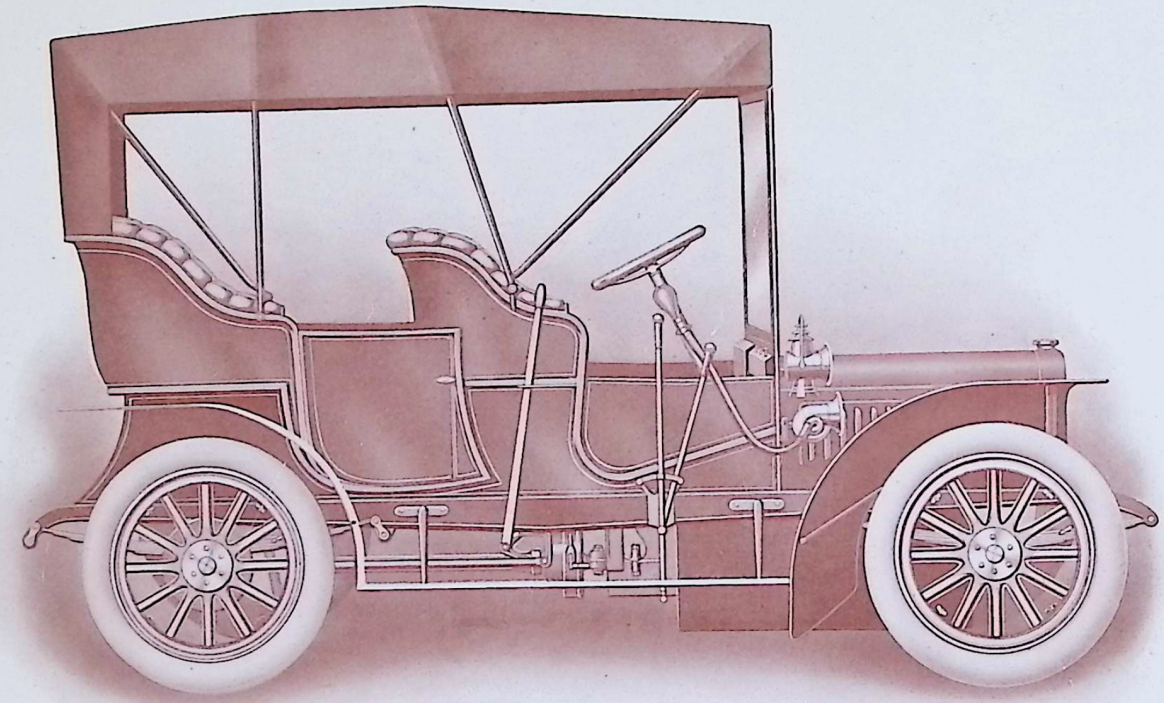
Argyll Saloon Car.

(FOUR CYLINDER.)



	16-20 H.P.	26-30 H.P.
Engine,		
Wheel Base,	9′ 9″	10′ 0″
Wheel Track,	4′ 1¼″	4′ 6″
Total Length,	14′ 3″	14′ 9″
Total Breadth,	5′ 3″	5′ 6″
Total Height,	7′ 4″	7′ 4″
Weight,	23½ cwt.	25½ cwt.
Seating Capacity inside,	4	4
Top Gear in miles per hour,	26	26
Price,	**£690**	**£900**

Argyll Side Entrance Car.



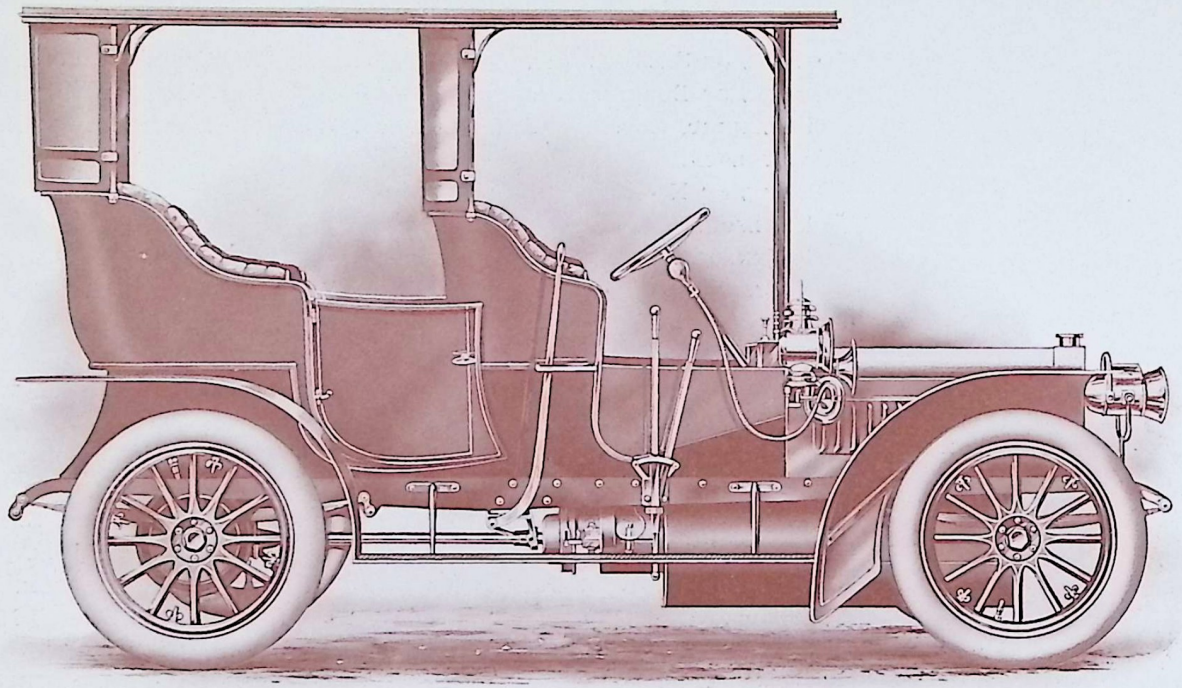
SIDE ENTRANCE CAR FITTED WITH CAPE CART HOOD.

10-12 H.P., - - -	£20	extra.
14-16 H.P., - - -	22	,,
16-20 H.P., - - -	26	,,
26-30 H.P., - - -	30	,,

Glass Screen for Hood, £5.

Norwegian Pine:
Norway and Switzerland.

Argyll Side Entrance Car.



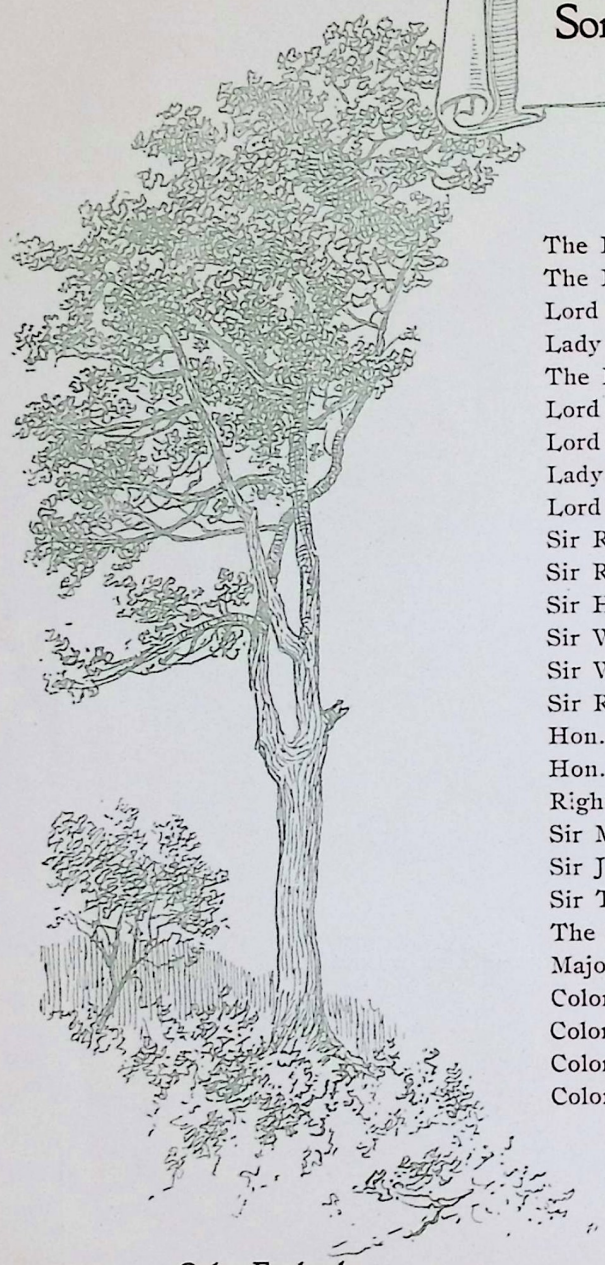
SIDE ENTRANCE CAR FITTED WITH PLAIN CANOPY, GLASS WIND SCREEN AND SIDE CURTAINS.

10-12 H.P., - - -	£30	extra.
14-16 H.P., - - -	32	,,
16-20 H.P., - - -	36	,,
26-30 H.P., - - -	40	,,

Extra for Panellings at rear with Curved Glass Corner, - -	£10 0 0
,, ,, behind Driver's Seat, - - - -	7 10 0

Pollarded Willow:
Holland.

Some well-known People who Drive Argylls.



Oak: England.

The Earl of Shaftesbury.
The Earl of Buckinghamshire.
Lord Plunket, Governor of New Zealand.
Lady Kinloch.
The Earl of Northesk.
Lord Saltoun.
Lord Wenlock.
Lady Wauchope.
Lord Cranworth.
Sir Ralph Hare, Bart.
Sir R. Waldie Griffiths, Bart.
Sir H. A. Robinson, K.C.B.
Sir W. Gordon Cumming.
Sir W. B. Forwood.
Sir R. Bulkeley.
Hon. H. L. Lowther.
Hon. H. F. Elliot.
Right Hon. W. H. Long.
Sir Michael Hicks-Beach.
Sir James Duke.
Sir Thomas Lipton.
The Right Rev. the Bishop of Liverpool.
Major Bailey.
Colonel Calvert.
Colonel Digby.
Colonel L. L. Powell.
Colonel J. C. Bailward.

Captain Matthews.
Lieutenant Burmaster.
Lieutenant W. T. Shepherd.
Dr. Andrew Carnegie.
Rev. Canon J. Blake-Humfrey.
Rev. H. Collison.
Rev. W. A. Cameron Reid.
Dr. Bracey, Wedmore, Somerset.
Dr. R. J. Brown, Hartford, Cheshire.
Dr. F. Buckham, Lanchester, Co. Durham.
Dr. A. K. Field, Hastings.
Dr. Flaxman, Pittenweem, Fife.
Dr. Gow, Banchory.
Dr. J. Hartley, Buxton.
Dr. Jeffrey, St. Austell, Cornwall.
Dr. J. W. Jolly, Alresford, Hants.
Dr. Ronaldson, Edinburgh.
Dr. H. Smith, Micheldriver, Hants.
Dr. Stewart, Battlehill, Hexham.
Dr. Wilson, Killearn.
Dr. Wingate, Coatbridge.
Percy Bayley, Esq.
H. S. Boden, Esq.
H. H. Darley-Livingstone, Esq.
J. L. Fraser, Esq.
J. B. Dunlop, Esq.
W. L. Boyle, Esq.

Some Medals Gained by Argylls.

Reliability Trials, Automobile Club, 1903.

GOLD MEDAL.
For Reliability and Hill-Climbing.

Scottish Automobile Club (Western Section) Glasgow to London Trials, 1904.

Paris Automobile Exhibition, December, 1903.

For Gearing at Liverpool, 1902.

SILVER MEDAL Awarded for Gearing, 1000 Miles Reliability Trials, 1903.

WIRRAL SHOW, 1905, Best Car under £500.

SILVER MEDAL, Liverpool, 1904.

For Speed at Portmarnock, 1904.

For Speed at Southport, 1903.

Wirral Show, 1904.

For Best and Most Improved Car. Cost not more than £500.

For Speed at Phœnix Park, 1903.

Irish Automobile Club Gallow Hill Climb, 1905.

Awarded GOLD MEDAL, Bombay. January, 1905.

Awarded BRONZE MEDAL,
For "Comfort and Elegance," Paris Salon, 1904.

Poplar: France.

HINTS TO USERS.

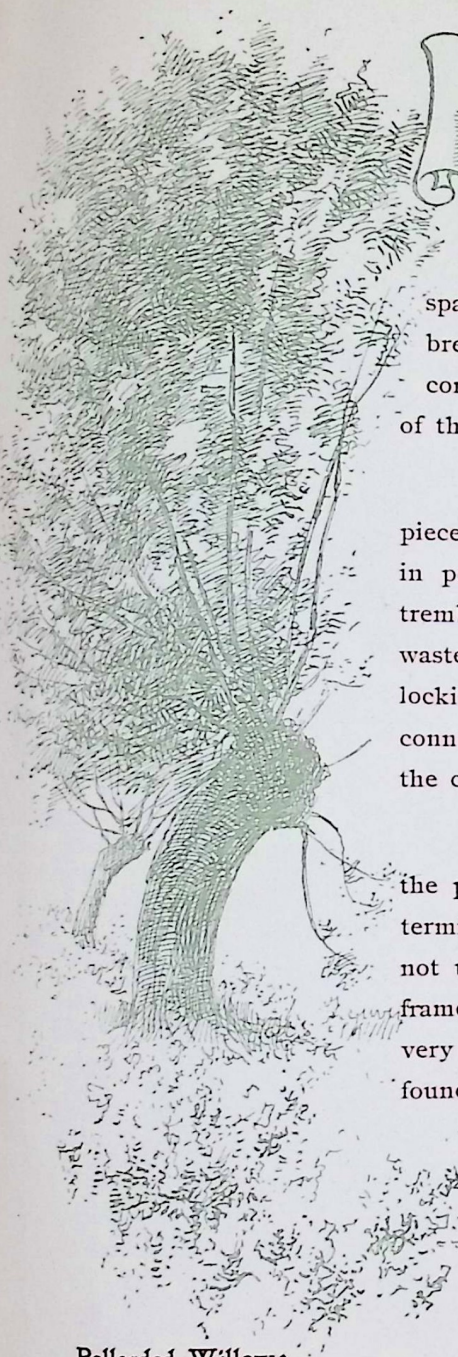
LUBRICATION is one of the most important points in the running of a motor; neglect on this score may result in very serious consequences, most probably a total break down of the engine—quite 90 per cent. of engine failures are directly attributable to want of lubrication. Ordinary gas engine oil should be entirely avoided, being quite unsuitable for high speed engines. Oil of a very high flash point and free from deposit at high temperatures, such as Vacuum Heavy R, &c., is the most suitable. This oil will be found to retain a good body in summer and does not become too thick in winter. The lubricator should be set to give about six drops per minute in each feed pipe for a 2-cylinder engine and four drops for 4-cylinders. The regulation should be done when the engine is running at its normal speed, as the feed varies in proportion to the speed of the engine.

The Engine.—After each day's run it is advantageous to inject a teaspoonful of paraffin into each cylinder and give the engine a few sharp turns by hand; this will remove all "gumminess" from the cylinder walls and prevent the piston sticking. After about 800 miles running, remove the sparking plugs and wash the engine out thoroughly by injecting about a wine glassful of paraffin into each cylinder; after turning sharply by hand for a few minutes remove the plug from bottom of crank case and allow all the waste oil and paraffin to drain off completely. Before starting the engine again it will be necessary to put in about three pints of oil for a 2-cylinder, a pint and a half in each end of a 14-16 H.P. Argyll, and one-and-a-half pint in each end of a 16-20. This may easily be done through the examination hole in the crank chamber or by removing one of the release valves on top of crank case.

The engine starts more easily on a rich mixture, this can be attained by slightly flooding the carburettor.

Should there be a loss of power in the engine the following points should be examined for the cause:—leakage at either the exhaust or inlet valves,

Scotch Fir.

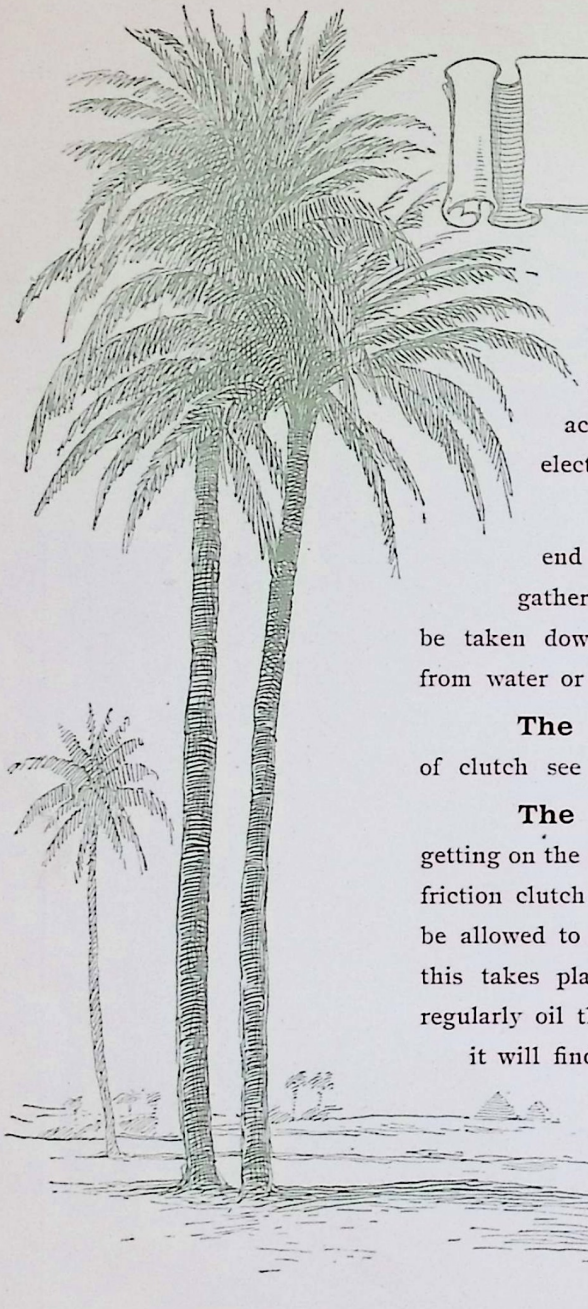


Pollarded Willow: Holland.

sparking plug, or piston rings; weak accumulators; dirty sparking plug; imperfect contact at the contact breaker, caused by a weak spring in the contact arm, or by carbonised oil on the fibre disc and contact pieces, or by excessive wear on the contact pieces, or burning of the platinums on the trembler of the induction coil.

The latter may be cleaned by removing the screw and trembler blade and dressing up the contact pieces perfectly square to ensure good contact when replaced. Put on the switch, put the contact breaker in position to close the circuit, then adjust the screw to the blade till the most rapid vibration of the trembler is attained, which should be with as light a contact as possible, a heavy contact at this screw wastes current and causes burning at the contact breaker. Lock the screw in position by means of the locking nut. When making this adjustment it is most important that the sparking plug wire should be connected to the plug and the plug to the cylinder, should this be neglected there is every probability of the coil being injured by burning.

Should misfiring occur examine the sparking plug points to see whether they are clean and the proper distance apart (about $\frac{1}{32}$ part of an inch), see that the porcelain of plug is not broken, all terminals of the wiring properly tight and clean, contact breaker clean and properly adjusted, accumulators not under four volts and all parts of the wiring which are likely to come in metallic contact with the framework properly insulated; a most successful method of finding a short circuit is to put the car in the very darkest place obtainable and start the engine, when any leakage in the electric circuit will be easily found. A dull blue flicker showing up bright in the dark although quite imperceptible in the light. Another fruitful source of misfiring is carbonised oil or grease at the contact breaker. This should be washed out frequently with petrol and then filled right up with a light mineral oil: *do not use engine oil for this purpose.*



Hints to Users—Continued.

Accumulators.—Do not discharge accumulators below 3·8 volts. Although it is possible to run on less than this it is most injurious and shortens the life of them. Examine accumulators frequently to ascertain whether the top of the plate is well covered with the electrolyte, if the top of the plate is visible add only pure distilled water to cover it.

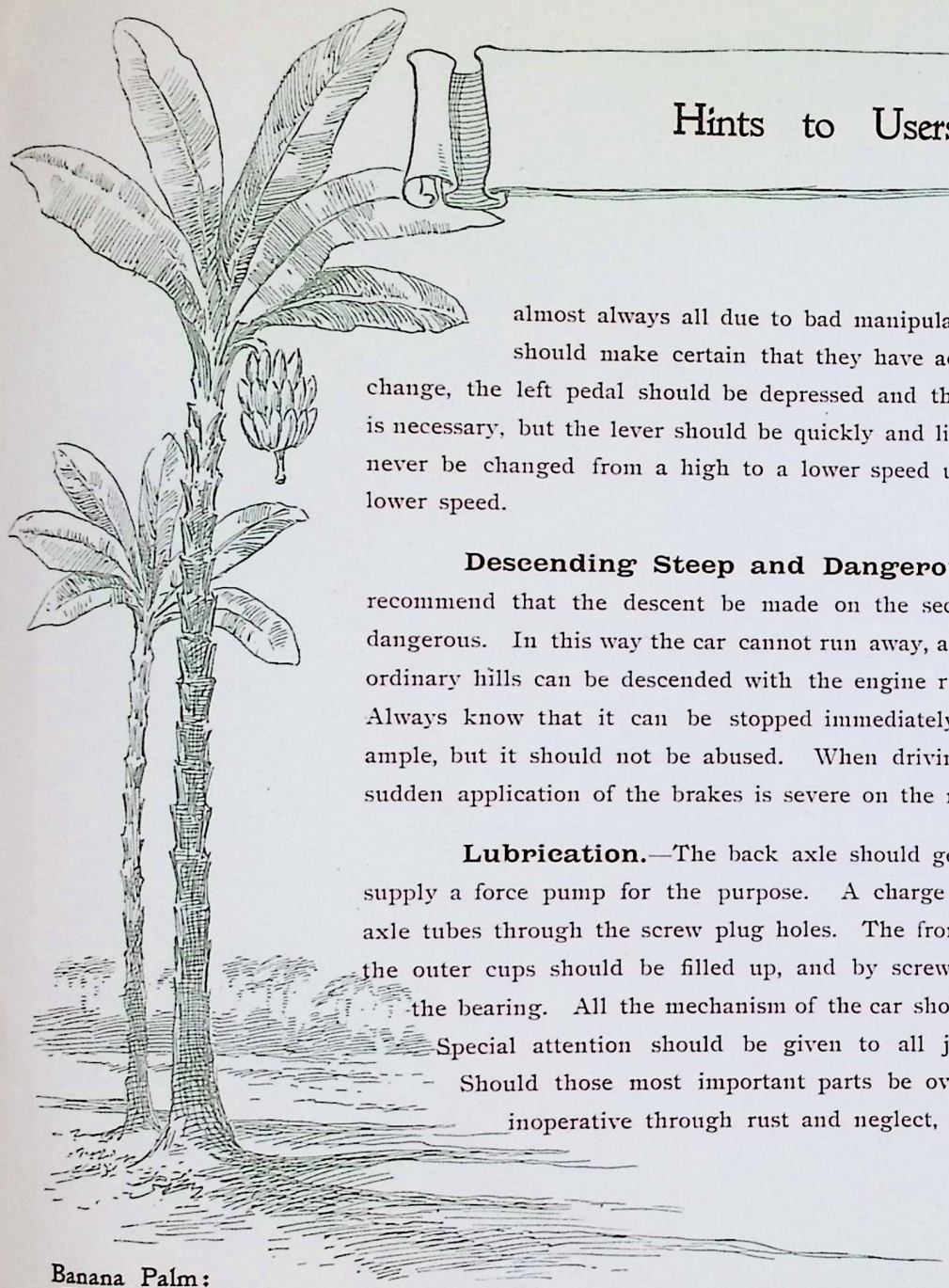
The Carburettor.—It is advisable to run off about a cupful of petrol from carburettor end of the petrol pipe about once a fortnight, this will clear away any water that may have gathered. The petrol in the carburettor should also be allowed to run off. The carburettor should be taken down and thoroughly cleaned out about every three months. It must be kept clean and free from water or grit.

The Metal to Metal Friction Clutch.—For hints as to the treatment of this type of clutch see page 15.

The Leather Faced Friction Clutch.—If this clutch should "slip" it will be due to oil getting on the face of the leather. This oil should be washed off by pouring petrol through the hole in the friction clutch drum or fly-wheel, a little Fullers Earth may be applied afterwards. The clutch should not be allowed to slip for any length of time, as the heat generated will burn the face of the leather, when this takes place then it is best to have the leather replaced at the first opportunity. Remember to regularly oil the friction clutch bearing. Don't give more than a few drops, as when too much oil is given it will find its way on the leather face of the clutch.

The Gear Box.—A charge of oil should be given to the gear box about every 200 miles, and all the actuating levers should be kept well lubricated and working freely, so that the gear can be changed without any "sticking" in any of the joints. As it has been fully demonstrated that the wear and tear of the gear box is

Palm Tree:
Egypt and India.



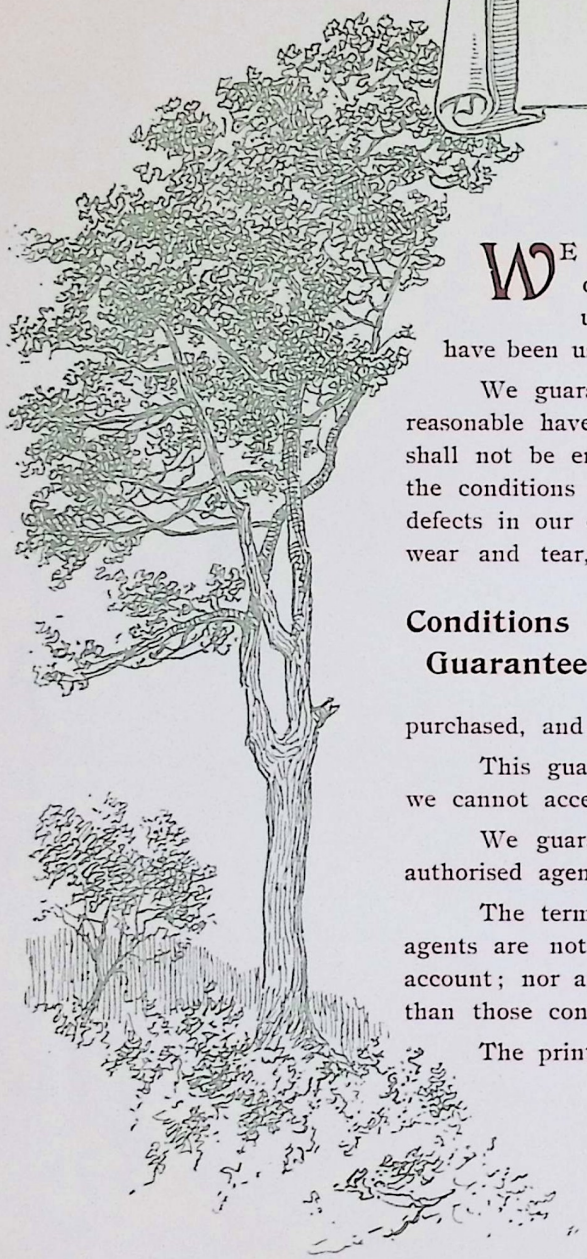
Banana Palm:
West Indies.

almost always all due to bad manipulation, it is therefore of the utmost importance that drivers should make certain that they have acquired the knack of changing without jar or noise. To change, the left pedal should be depressed and the change immediately made by the hand lever; no force is necessary, but the lever should be quickly and lightly moved from one gear to the other. The gear should never be changed from a high to a lower speed until the car is moving at approximately the rate of the lower speed.

Descending Steep and Dangerous Hills.—When descending steep dangerous hills, we recommend that the descent be made on the second speed, or even the first speed, if the hill is very dangerous. In this way the car cannot run away, and the brakes are reserved for any emergency. Of course ordinary hills can be descended with the engine running free. Never allow the car to get out of control. Always know that it can be stopped immediately if necessary. The brake power provided is more than ample, but it should not be abused. When driving in the ordinary way allow plenty of time to stop, as sudden application of the brakes is severe on the mechanism, and should only be done to avoid accident.

Lubrication.—The back axle should get a charge of solidified oil about every 500 miles. We supply a force pump for the purpose. A charge should be given to the gear and also to each of the axle tubes through the screw plug holes. The front wheels may be very efficiently lubricated with grease, the outer cups should be filled up, and by screwing these home the grease will be forced right through the bearing. All the mechanism of the car should be kept clean, and all joints should be regularly oiled. Special attention should be given to all joints and moving parts of the back brake mechanism. Should those most important parts be overlooked, they may, when most wanted, be found to be inoperative through rust and neglect, and be the direct cause of a very bad accident.

Guarantee and Terms.



WE give the following Guarantee with our Motor Cars, instead of the guarantee implied by statute or otherwise, as to the quality or fitness for the purpose of motoring, of goods supplied by us; any such implied guarantee being, in all cases, excluded. In the case of cars which have been used for "hiring out" purposes, no guarantee of any kind is given or is to be implied.

We guarantee, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, but the purchaser shall not be entitled to claim any damages for injury to car or occupants. We undertake, subject to the conditions mentioned below, to make good, at any time within three months from date of purchase, defects in our cars, except in regard to the tyres. This guarantee does not apply to defects caused by wear and tear, misuse or neglect.

Conditions of Guarantee.

If a defective part should be found on any of our cars, it must be sent to us *Carriage Paid*, and be accompanied by an intimation from the sender that he desires to have it repaired free of charge under our guarantee, and furnish us at the same time with the number of the car, the name of the Agent from whom he purchased, and the date of purchase.

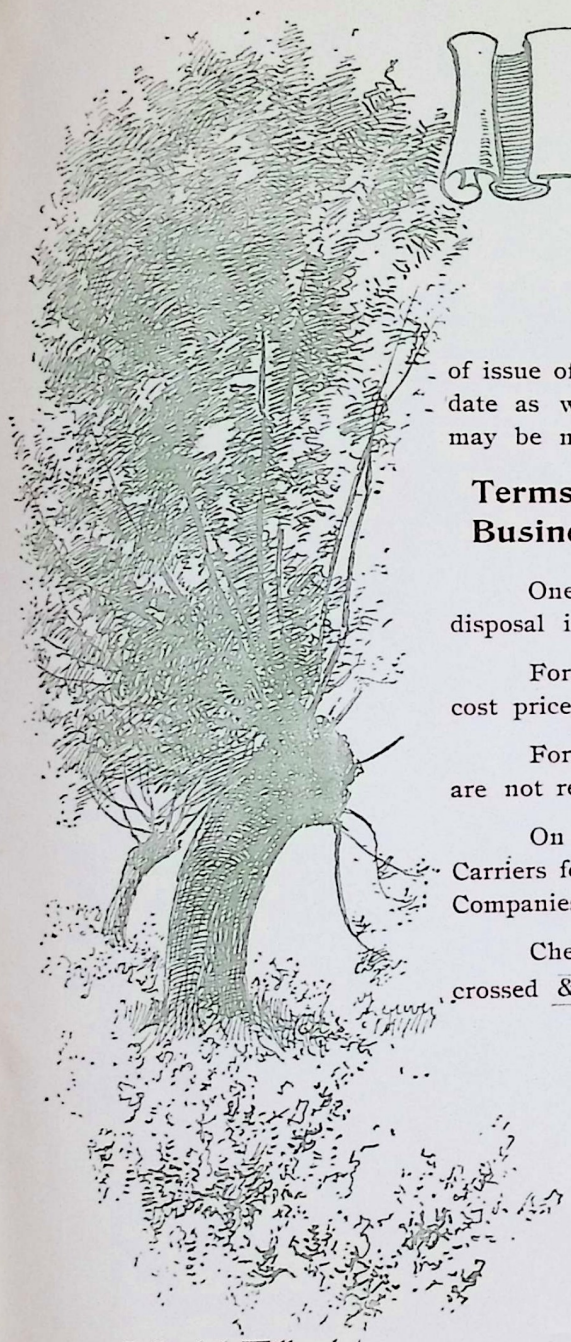
This guarantee must be understood to end with the replacement of the faulty part or parts, and we cannot accept any responsibility for any other expense to which the owner may be put.

We guarantee only those cars which are bought either direct from us or from any of our duly authorised agents.

The term "AGENT" is used in a complimentary sense only, and those firms whom we style our agents are not authorised to advertise, incur any debts, or transact any business whatsoever on our account; nor are they authorised to give any warranty or make any representation on our behalf other than those contained in the above guarantee.

The printed Specifications of the various types of cars as detailed are those in force at the time

Oak: England.



Pollarded Willow: Holland.

Guarantee and Terms—Continued.

of issue of this Catalogue. We claim the right, however, to so far amend or modify these at any future date as we may consider necessary, without any notice being given to the public. Alterations also may be made in prices.

Terms of Business.

Prices quoted in this Catalogue are *Net Cash.*

Delivery is made either at our works in running order, F.O.R., or free alongside vessel.

One-third cash must accompany the order, and balance on intimation that the car is at the purchaser's disposal in our works.

For shipment, or rail in Britain, we pack our cars in strong crates. These are charged at their net cost price, which is credited in full when returned carriage paid in good condition.

For export orders our cars are cased; the packing and cases are charged at the net cost price, and are not returnable.

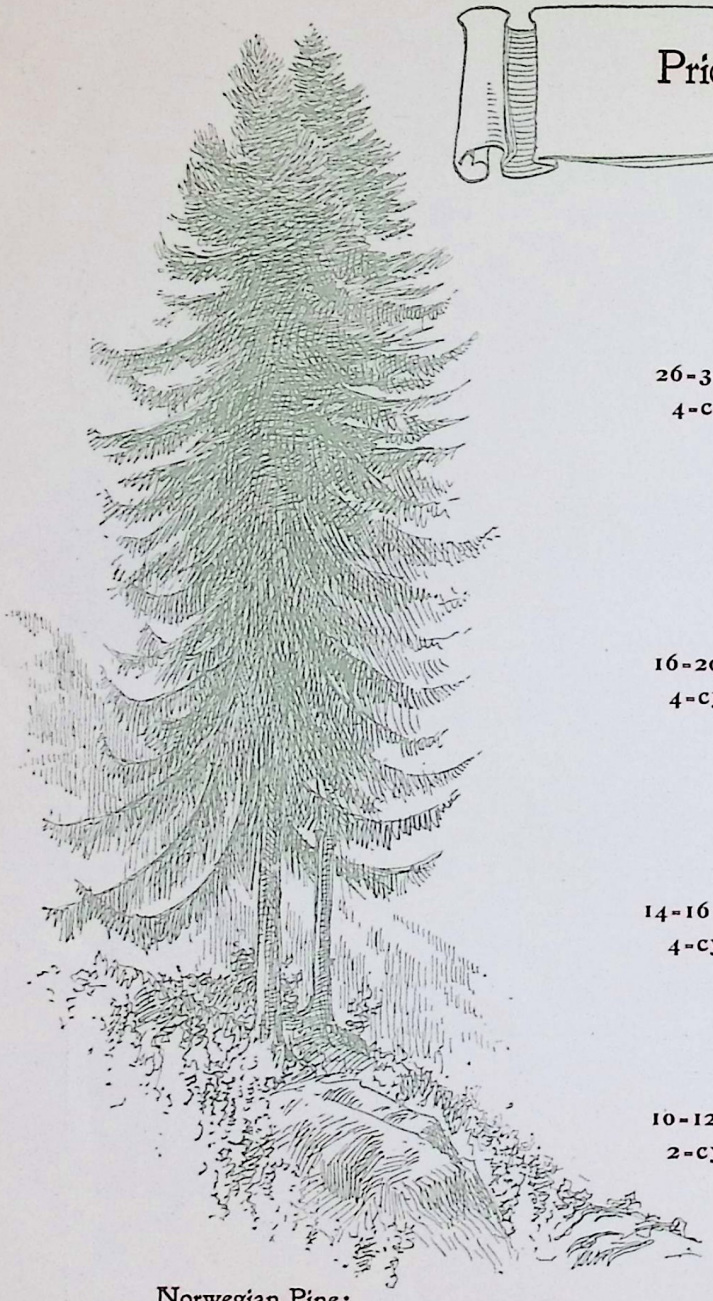
On receiving goods customers should carefully inspect, and, if damaged, make an immediate claim on the Carriers for same, as these are signed for as being received in good condition by the Railway or Shipping Companies. The latter becomes the agent for the purchaser; the purchaser pays all carriage charges, etc.

Cheques and Post Office Orders should be made payable to "ARGYLL MOTORS," LIMITED, and crossed & Co.

Customers' Cars will only be driven by our Employees at the customers' risk.

All Repairs or Alterations must be paid for when completed, and before the Car or Part, as the case may be, is returned to the owner.

Price List, Argyll Cars, 1906.



Norwegian Pine:
Norway and Switzerland.

Engine.	*Type of Body.*	*Price of Car.*
26-30 'Aster,' 4-cylinder,	Saloon,	£900
	Double Landaulet,	900
	Single Landaulet,	850
	Detachable Top Brougham,	825
	Wagonet,	790
	Double Side Entrance (7 seated),	800
	Standard Side Entrance (5 seated),	750
16-20 'Aster,' 4-cylinder,	Saloon,	£690
	Double Landaulet,	690
	Single Landaulet,	640
	Detachable Top Brougham,	625
	Wagonet,	590
	Double Side Entrance (7 seated),	600
	Standard Side Entrance (5 seated),	550
14-16 'Argyll,' 4-cylinder,	Single Landaulet,	£550
	Detachable Top Brougham,	540
	Wagonet,	490
	Standard Side Entrance,	475
10-12 'Aster,' 2-cylinder,	Single Landaulet,	£450
	Detachable Top Brougham,	445
	Wagonet,	390
	Standard Side Entrance,	380
	Tonneau,	350

Poplar: France.

VERDICT OF THE PRESS.

"These excellent cars." "A really popular car."—*The Motor News.*

"The 'Argyll' cars are among the most notable of all British automobiles."—*The Field.*

"Are in a class than which there is none better."—*Midland Counties Express.*

"These 'Argyll' motor cars, reckoned as among the most reliable cars at present on the roads."—*Sydney Daily Telegraph.*

"The cars are splendid examples of Scottish design and workmanship."—*Dundee Advertiser.*

"The 'Argyll' change speed gear was one of the great attractions of the Paris Show."—*The Motor Trader.*

"The notable success of the 'Argyll' cars has been undoubtedly due to their great excellence combined with the moderate cost."—*Edinburgh Evening Dispatch.*

"The double-mitred and staggered-spoked wheel, as fitted to the 'Argyll' cars, struck us as being particularly strong, yet withal light."—*The Autocar.*

"There can be no question that the popularity of the 'Argyll' cars will be more than maintained during the coming season."—*Motor Car Journal.*

"The 'Argyll' car is as fine a specimen of workmanship as we have seen, and will well uphold the credit of 'the greatest engineering centre of the world.'"—*The Motor World.*

"Our run to Newcastle was uneventful so far as the running of our 'Argyll' was concerned, for she ran perfectly and gave no trouble whatever."—*The Motor News.*

"It is not fair to expect any car to go through what mine—a 12 H.P. 'Argyll'—has done, but I am satisfied now that it is capable of going anywhere."—Mr. W. R. Grimwade in *The Register.*

"The 'Argyll,' which is fast becoming one of the most popular cars in the British Isles . . . . especially notable for the number of its good features."—*Irish Field.*

"The new model of the well tried 10-12 H.P. 2-cylinder 'Argyll' exhibits many improvements. The body is on *Roi des Belges* lines, and is one of the most comfortable standard tonneaus supplied by any firm."—*The King.*

"Designed to meet the demand for a quiet running car, speedy on the hill, and readily convertible into a two-seater. . . . The finish is especially fine, and compares very favourably with that found on French cars."—*The Gentlewoman.*

"It would be possible to specify at least half a dozen British firms—including the makers of such cars as the 'Argyll'—whose home productions are in every respect on an equality with the best that France can produce."—*Free Lance.*

"When we look back upon the success of the makers of the 'Argyll' cars, we are bound to admire the perseverance, pluck, and energy of those most intimately concerned. . . . The 'Argyll' cars have gained a world-wide reputation."—*The Autocar.*

"The Hozier Engineering Company of Glasgow, who turn out the 'Argyll' car, have every reason to be proud of their handiwork. The fact that this firm is one of the most successful in the business is proof positive of the exceptional qualities of the 'Argyll' car."—*Weekly Despatch.*

"Away in the north this type of car has long been popular, and familiar on the roads as other vehicles. In the south it has been frequently seen in Reliability Trials, as well as on the road, where it has been distinguished for easy running and good workmanship."—*Motor Car Journal.*

"The Company, established in the year 1900 in a small way, commenced operations by building small two-seated cars. The development was so rapid that the firm resolved to go into the construction of larger cars, for which there is a constantly increasing demand. The success of the concern has been uninterrupted. The 'Argyll' cars are sent all over the world."—*Black and White.*

"'Argyll' Motors, Limited, Glasgow, have earned a very high reputation in competition tests and at exhibitions for the reliability and speed of the famous 'Argylls.' It has always been their aim to supply cars at once simple, reliable, and absolutely trustworthy, fitted with comfortable and handsome bodies, and in their latest output they have incorporated every improvement that experience and science could suggest."—*Dumfries Herald.*

"The 'Argyll' has given remarkable satisfaction during the last year, as many of our readers have recorded; consequently it is not surprising to find that comparatively few alterations have been made for the coming season, and nearly all the outstanding features, including the inverted U section frame, have been retained. The time has rather been expended on simplifying, and one might almost say, beautifying the various details of construction."—*The Autocar.*

"The car is an 'Argyll,' and has pulled up those terrible ghâts from Poona to Mahableshwar (75 miles) twenty-seven times without a breakdown—or even the engine being touched. It would seem as if Mr. Stewart had been lucky enough to choose the right car for such work. Each journey up the hill took about four hours and a quarter, and nearly every run down was accomplished under the four hours. By train and phaeton it takes thirteen."—*The Empress* (Calcutta).

Poplar: France.

Verdict of the Press—Continued.

"Amongst the more expensive 2-cylindered cars the latest 'Argyll' claims considerable attention, for this shows many detail improvements. . . . Of course the well known gear, designed by Mr. Govan, is still retained. It must be added that a smart side-entrance body is fitted, and the car looks thoroughly up to date in every particular."—*Land and Water.*

"Probably no concern in the British motor industry has had a more brilliantly successful career than the Company which was established in Glasgow so quietly, and, till it, so to speak, found its feet, was conducted with such a strong note of Scottish caution. But having found its feet, the 'Argyll' Company has simply romped to the very forefront of the industry. This result has not been due to any element of luck, but is the natural reward of turning out an article sound, reliable, and efficient."—*The Motor Trader.*

"The car will be produced under the most favourable conditions that skill, experience, and good organisation can achieve; and, if one may indulge in prophecy, the future portends, in the inauguration of the new factory by the shores of Loch Lomond, the opening of a fresh chapter in British commerce, alike creditable to the nation, but in particular to Messrs. Smith and Govan, by whose zeal and acumen it bids fair to be soon a success and an object-lesson in latter-day mechanical industry."—*The Motor Trader.*

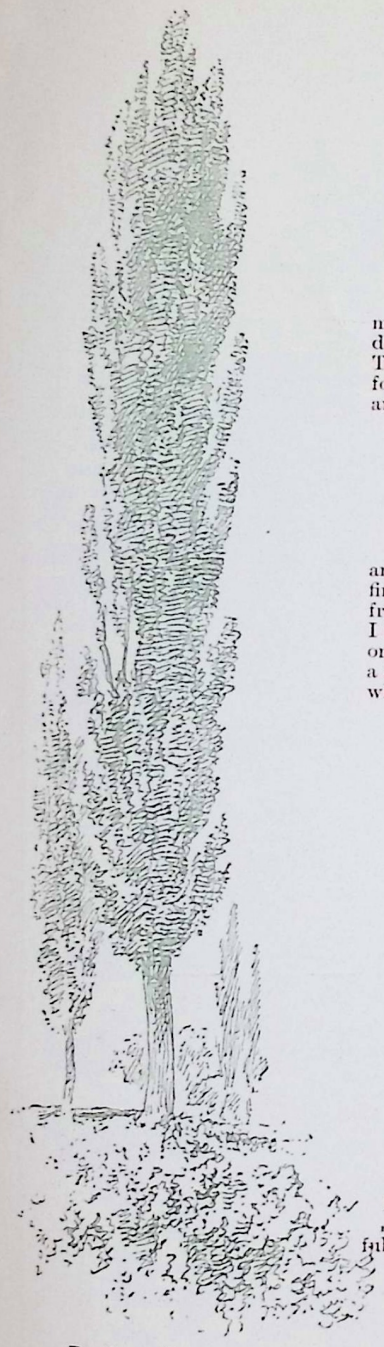
"Both 'Argylls' came through the 570 miles splendidly, without an involuntary stop, and without any adjustments whatever. The roads in parts were simply frightful, and you at home cannot conceive some of the roads we had to go over. . . . Some of the light cars had a very bad time. . . . The 'Argylls,' however, finished with full points. . . . Captain H. Tarrant (on an 'Argyll') made an absolute non-stop run this day (as on every other one), securing the cup, a gold medal, and winning the challenge cup for Victoria."—The Tarrant Motor Company, of Melbourne, in *Motoring Illustrated.*

"As car manufacturers approach towards the goal of perfection testimonials of the ordinary kind become less valuable. It is now nothing unusual with the makers to receive letters from gratified users whose expectations have been more than fulfilled, but it is seldom that such a convincing proof of the reliability of the modern car is afforded as occurs in a letter addressed last week to the Argyll Company by a Glasgow lady, who states that she has had an 'Argyll' car, 16-20 H.P., for eighteen months, during which time it has been driven over 16,000 miles without a single involuntary stop for any mechanical trouble."—*Morning Post*, 19th January, 1906.

"There is no car of British manufacture in the design and construction of which such rapid progress has been made as in the 'Argyll' cars. This fact has been most conclusively brought home to the writer by a long run he lately enjoyed in a 4-cylinder 16-20 H.P. 'Argyll,' and comparing that perfectly finished machine with one of the original 'Argylls' he owned some years ago. Contemplative purchasers, particularly those who interest themselves in the 'innards' of self-propelled vehicles, should write to the company for a copy of their catalogue, in which the whole scheme of construction and the conduct and care of 'Argyll' cars is laid bare by text and splendidly produced diagrams."—*The Sketch.*

"I had an opportunity of driving a 16-20 'Argyll' for several days over the narrow, winding roads of the Highlands, and now am in a position to realise why it is that 'Argyll' cars are so popular. Properly tuned, the car is as easy to control as a voiturette, and is wonderfully responsive to the throttle lever. It will climb quite stiff pimples on the high speed, and will continue to run smoothly and silently even when the gradient has become so excessive as to cause the pace to drop well under ten miles an hour. . . . Many drivers never succeed in attaining the art of changing properly, and quickly ruin the pinions. Now, the 'Argyll' gear system is as near fool-proof as it is possible for any complex piece of machinery to be."—Mr. R. J. Mecredy (Editor), in *The Motor News.*

"While I frankly own that I do not consider that any of our English types are actually superior to the French, yet I think that we have rapidly gained ground, and I look forward to the time when no Britisher, whatever he wants, need ever go outside his own country to get it. One strong argument was put forward by that clever engineer, Mr. Alexander Govan. This gentleman, who is responsible for the design and construction of the 'Argyll' car, remarked that at a time when the unemployed question was so much to the front he thought that one very fair reason for buying a British-made car was that, roughly speaking, the purchase of a medium-priced car meant continuous employment, at good wages, for quite three or four workmen for a year. . . . I venture to think that the argument does deserve consideration, and that when a man is hesitating in his choice, the knowledge that he will, in one case, provide a large amount of employment for British workmen, should turn the scale and ensure the order being placed with a British firm."—"SPEED," in *The Graphic.*



Poplar: France.

TESTIMONIALS.

Bowden Hall,
GLOUCESTER, 30*th August*, 1905.

DEAR SIR,

I have now had the 2-cylinder "Argyll" (1904) rather more than a year, and am thoroughly satisfied with it. I have driven it over 5000 miles, and have never yet failed to get home. The entire cost of repairs, including tyres, replacements and petrol, for one year (5,000 miles) was just £50. I am my own chauffeur, and the above cost does not include expense of cleaning.

Yours truly,
(Signed) J. D. BIRCHALL.

Loshville, Etterby Scaur,
CARLISLE, 10*th February*, 1905.

DEAR SIRS,

I purchased a 10-12 H.P. "Argyll" car in September, 1904, and have kept a careful account of my expenses and mileage for the first year; as my record is so very much better than any of my friends in this district, I thought it might interest you to see it. I had three punctures during the year, and have never been stopped or delayed through any mechanical trouble. My mileage included a fortnight's tour to John o' Groats and back, covering 1,033 miles, when I had one day in the fortnight *without* rain.

I am, yours truly,
(Signed) D. LOSH THORPE.

First Year's Record of D. LOSH THORPE, of Carlisle.

Miles run, - - -	3173½ miles.	
Petrol used, - -	170 galls.	
Average for first year, -	18 $\frac{14}{15}$ miles per gall.	
Present average, - -	24 ,, ,,	

RUNNING EXPENSES
(Not including Tyres).

Petrol purchased, - - -	£10	8	1
Oil and grease, - - -	1	4	3
Carbide purchased, - -	0	5	0
Charging accumulators, - -	0	3	6
Repairs, - - - -	0	14	0
	£12	14	10
Less value of stock on hand, -	2	7	4
	£10	7	6

Bevern Bridge House, Cooksbridge,
SUSSEX, 20*th September*, 1905.

DEAR SIR,

The "Argyll" car which I bought second hand runs beautifully, and gives no trouble at all.

Yours faithfully,
(Signed) JOHN FLINT, Jun.

Rigby Hall, Bromsgrove,
WORCESTER, 4*th September*, 1905.

Messrs. The Birmingham Motor Car Co.,
256 Corporation Street, Birmingham.

DEAR SIRS,

I have now done about 2,500 on the 16-20 "Argyll" which you delivered to me on 22nd June, 1905, and I may say with the slight exception of the carburettor, which has required adjusting from time to time, I have been more than satisfied with her.

I may say she is exceedingly quiet in running, very easy to control, and her general appearance is very much admired by all my friends.

I might also add that up to the present, I have had no punctures, which speaks well for the Michelin Tyres fitted to the car.

Yours faithfully,
(Signed) HARRY C. ANSELL.

Kiladreenan, Newtown Mt. Kennedy,
Co. WICKLOW, 18*th September*, 1905.

DEAR SIR,

You ask for my experiences on the 16-20 "Argyll" supplied to me in March last.

I have up till to-day done 6,445 miles, during which time I have had only three stops on the road.

1st.—At Berkhamstead broke a taper pin on fan pulley.

2nd.—I allowed accumulators to run down, and had to borrow an accumulator from a motor bicyclist.

That is the total, exclusive of a few punctures, and I think it decidedly a record for reliability.

I cannot speak too highly of the car. It looks to-day as if it came out of the works yesterday, even after several boat crossings between Dublin and Holyhead.

I am more than satisfied, both with this 16-20 H.P. and the 10-12 H.P. I had last year—the latter making 1,262 miles between the last involuntary stops of the engine and the date I sold her.

Yours truly,
(Signed) CHARLES W. SEGRAVE.

Bryn-Mel, Menai Bridge,
ANGLESEY, 29*th September*, 1905.

DEAR SIRS,

I am obliged for yours of 27th. Your man came again to see me from Mr. Clegg's, and has been most attentive. He has looked over my car, with the result that it goes like the devil himself. He tells me nothing is required, and all is most satisfactory, which speaks volumes for the car, considering it has been in amateur's hands all the time.

Thanking you for instructing him to call.

Yours truly,
(Signed) E. F. W. PLATT.

Poplar: France.

Testimonials—Continued.

The Poplars, Roby,
NEAR LIVERPOOL, *14th September*, 1905.

Messrs The Road Carrying Co., Ltd.,
27 Leece Street, Liverpool.

GENTLEMEN,

I am pleased to testify that the 10-12 H.P. "Argyll" car purchased through you in April last, after running about 3,000 miles, has proved itself thoroughly satisfactory, subject of course to the usual necessary small adjustments—and has taken some of the stiffest gradients on the second speed; besides the speed levers are so simple to manipulate.

I can recommend it as a strong, well made and smooth running car, and may say that I know of instances when orders have been placed with you after seeing and trying the car you had made for me, and from my experience shall have pleasure in recommending the "Argyll" to intending purchasers.

I am quite satisfied with my purchase and the courtesy always extended by your firm.

Yours truly,
(Signed) WALTER R. TAYLOR.

Eustace H. Watson, Esq.,
Trinity Street, Leeds.

85 Cookridge Street,
LEEDS, *18th September*, 1905.

DEAR SIR,

We understand that you will be shortly leaving Leeds, and therefore take this opportunity of thanking you for the attention we have always received at your hands.

You will no doubt be pleased to have a few facts and figures concerning the 10-12 H.P. 2-cylinder side entrance "Argyll" car which we purchased from you on 6th June last. Up to the present moment it has, as near as we can tell, run over 2,750 miles, and the total cost for all fuel, lubricating oils, repairs, and sundries of all descriptions has been £21 7s. 5d., this amount including the cost of re-treading an outer cover, and a new inner tube.

You will probably be aware that we use this car mainly for the purpose of inspecting our many billposting stations in this district, and you will no doubt be surprised to hear that we can now make the whole round with the car in 5 hours, whereas it previously took us three days with 6 hours running each day in a hired horse drawn vehicle, for which we had a contract at the rate of 2/6 per hour. This shows a total cost of £2 5s. per round by horse drawn vehicle, as against about 10/- by motor car, this latter amount including the man's time driving the car. The result we consider extremely satisfactory, and far beyond our expectations. We can only say that we are perfectly satisfied with the car as regards the ease of manipulation, comfortable and reliable running, and low cost of upkeep, and we are much obliged to you in the first instance for having persuaded us to consider the use of the car in connection with our business, as it has proved a very considerable saving, not only of money, but more particularly of time.

Yours faithfully,
(Signed) SHELDONS LIMITED.

The Willows, Jesmond,
NEWCASTLE-ON-TYNE, *24th October*, 1905.

Messrs. George & Jobling,
South Street, Newcastle-on-Tyne.

DEAR SIRS,

Replying to yours of the 11th inst., *re* cost of running "Argyll" cars, I beg herewith to enclose sheet showing details of running costs of my 3-cylinder car from the 1st July, 1904, to the 30th June last. Up to that date the car had covered 8120 miles, and, as you will see, the running cost works out just under 2·2 pence per mile, and the petrol used for all purposes (including cleaning) at 18·13 miles per gallon. Although this latter figure may be considered satisfactory, it has been considerably improved during the present year, and the average during the past four months works out at 22·5 miles per gallon.

I also give details of the running costs per 1000 miles as requested, and trusting this gives you the information you require,

I remain, yours faithfully,
(Signed) G. EARNEST HUNTER.

Details of running costs of 3-cylinder "Argyll" car from July 1st, 1904, to June 30th, 1905.

	Running cost for year, as above.	Cost per mile, in pence.	Cost per 1000 miles.
Registration fees and driving license,	£2 7 0	·0695	£0 5 9½
Petrol, 448 gallons,	21 5 2	·6280	2 12 4
Oil, grease, etc.,	6 6 5	·1868	0 15 7
Garaging, etc.,	2 5 6	·0672	0 5 9
Repairs (labour),	12 18 11	·3828	1 11 11
Repairs, materials and replacements,	12 14 7	·3762	1 11 4
Tyre repairs and renewals,	15 18 3	·4700	1 19 2
Total,	£73 15 10	2·1805	£9 1 10½

Total distance run, 8120 miles.
Total petrol used for all purposes 448 gallons.
Average miles per gallon, 18·13.

Union St. and Fairfax St.,
BRISTOL, *9th October*, 1905.

DEAR SIRS,

I am the owner of a 10-12 "Argyll" car purchased from you through the Bristol Motor Co., of which I had delivery in March, 1904. The car has given every satisfaction, having driven it about 10,000 miles without any trouble, and is now in splendid condition.

Yours truly,
(Signed) S. J. HILL.

Poplar: France.

Testimonials—Continued.

Orma Lodge, 42 Breakspears Road,
BROCKLEY, LONDON, S.E., *27th September*, 1905.

DEAR SIRS,

I have lately acquired one of your 10 H.P. double cylinder cars No. 451. I was influenced in my selection, from a large number of types offered to me, by my confidence in engineering work emanating from Glasgow, and the favourable judgment I formed on inspection of the detail of the construction of the car. I may mention that I have been professionally connected with Messrs. Denny Bros., and Messrs. Denny & Co., for some years past.

I am glad to say that the first few runs I have had with the car have delighted me with it, so much so that I insist on handling it myself, whereas hitherto my son has always acted as my chauffeur.

Yours faithfully,
(Signed) CARLTON J. LAMBERT.

P.S.—I may add that my son, Mr. Leslie Lambert, an engineer with Messrs. Yarrow, and an experienced motorist, is equally enthusiastic with myself in our experiences with the car.

May I ask if you think the thermo-siphon circulation will meet the case of a lengthy drive through London traffic where the middle-speed gear is almost continually used?

256 Corporation Street,
BIRMINGHAM, *21st September*, 1905.

DEAR SIRS,

We have received the following testimonial from our client, Sir Henry Grey, Bart., Stamford House, Enville, Stourbridge, who purchased a 10-12 car in February last. He says, "I am very much pleased with the 'Argyll' car you supplied to me. It is comfortable, quiet and reliable, and I have found it of the greatest use to me."

Yours faithfully,
BIRMINGHAM MOTOR CAR CO.,
J. M'COSH.

Saltoun Hall,
PENCAITLAND, N.B., *5th October*, 1905.

DEAR MR. APPLETON,

I am writing to tell you that I took the 10-12 H.P. "Argyll," which I bought through you last October, on the Motor Tour which the Chief Secretary has lately made in the South, West and North of Ireland. The tour lasted from September 12th to September 23rd, both days inclusive, and the cars only had one day's rest. My car went magnificently and I never had the smallest breakdown over the 1300 miles which we travelled. Since then I have motored from Stranraer across the South of Scotland to this place, which is 18 miles from Edinburgh, and the car has maintained the reputation it gained in Ireland.

Believe me, yours truly,
(Signed) GEORGE A. GIBBS.

The Manse, Pittenweem,
FIFE, *22nd September*, 1905.

Messrs. The Rossleigh Motor Co., Ltd.,
Edinburgh.

DEAR SIRS,

The 10-12 H.P. "Argyll" car has given much satisfaction and pleasure.

We have just completed an extended tour, in which we passed over some of the roughest and hilliest roads in the Highlands. The car carried four persons over many rough roads and steep hills, and the work done proved to the utmost the reliability of every part.

It gives me pleasure to offer my testimony to the capacity of the "Argyll" for long and trying work.

The finish of the car left nothing to be desired.

Thanking you for the manner in which you carried out my order.

Yours truly,
(Signed) JAMES G. GOODALL,
Minister of Pittenweem.

The Secretary,
The Road Carrying Co., Ltd.,
27 Leece St., Liverpool.

Plas Newton,
CHESTER, *4th September*, 1905.

DEAR SIRS,

The "Argyll" which I purchased from you has given unqualified satisfaction. We have not had a stoppage or breakdown of any sort, although we do not keep a chauffeur, and have often carried a load of six people.

I do not think any one could have a better car for the money. We ran over 70 miles without a stop yesterday.

Yours truly,
(Signed) ALFRED TYRER.

Messrs. The Road Carrying Co., Ltd.,
Liverpool.

Old Tannery House,
LYMM, CHESHIRE.

DEAR SIRS,

I am very glad to inform you the 10-12 "Argyll" waggonette that you supplied to me in June has given every satisfaction. It has now run 1,800 miles, and I have only once been delayed five minutes on the road.

Yours faithfully,
(Signed) W. ARTHUR DEWHURST.

To the Road Carrying Co., Ltd.,
Liverpool.

Shandon House,
SHANDON, N.B.

DEAR SIRS,

In reply to your letter asking my experience of the 10-12 H.P. "Argyll" car, I beg to say that I have found it most satisfactory; its strongest point appears to be its power of hill climbing.

Yours faithfully,
(Signed) G. E. C. CLAYTON.

Poplar: France.

Testimonials—Continued.

Birmingham, *5th September*, 1905.

Gentlemen,

I have pleasure in informing you that we arrived here quite safely last night. The car has now done 9,000 miles, and in the last seven days about 800. We came back from Edinburgh by the coast route, and, with the exception of the broken joint in the exhaust pipe which you repaired, and one broken porcelain in the plug, I have not taken a tool of any sort out of the back, not even a tyre pump. The water consumption was about two quarts. Considering weather and roads, and also that no overhauling has been done to the car, it speaks well for the way your cars are turned out.

Yours very truly,
(Signed) G. F. G. E.

Messrs. The Road Carrying Co., Ltd.,
27 Leece Street, Liverpool.

Beechfield, Heswall,
Cheshire.

Dear Sirs,

The new 20-24 H.P. "Argyll" is a fine car. I have every hope that it will prove as good an investment as the 16-20 that has done me so well for the last eighteen months.

The particular features of the new car are good springing, perfect engine control, and the great flexibility of the metallic clutch.

Yours faithfully,
(Signed) CHARLES M'IVER.

11 to 16 Cannon Street,
Birmingham, *8th May*, 1905.

Dear Sirs,

Having just completed 1100 miles, according to my Mileage Chart, on one of your 10-12 Side-Entrance Cars, I thought that, in justice to your good selves, I would mention that I have not had to stop for one single minute for tyre or engine trouble, and generally have five up. In fact, the car seems to run just as steady with a big load as a small one, and 70 stone is a big load for a 10-12, yet she will average 20 in a run of 170 miles, which she did on Easter Monday.

This experience, after last year's French car with slipping clutches and leaking boiling water, is a pleasant change.

The car was supplied by your agent here, Mr. Cook, whom we have found most obliging.—Yours truly,
(Signed) GEORGE G. COLE.

N.B.—Your gear is "great."

Fordell House, Inverkeithing,
Fife, *28th September*, 1905.

Dear Sir,

I have now had my "Argyll" car for two years and a quarter, and I am glad to be able to tell you that it has given me complete satisfaction. I hope to see your newest designs of engines and cars at the London Show in November next.

Yours faithfully,
(Signed) BUCKINGHAMSHIRE.

60 Melville Street,
Edinburgh, *10th March*, 1905.

Dear Sirs,

I must say the car has proved everything that you claim for it. We ran over 2,000 miles without having to add any water, and without a puncture.

Yours faithfully,
(Signed) LYNN M'KELVIE.

W. Alexander Smith, Esq.,
6 Hanover St., Glasgow.

13 Sinclair Terrace,
Wick, N.B., *29th April*, 1905.

Dear Sir,

My object in going south was neither for pleasure nor for record breaking, but to have the car given a look over before the winter season set in. Considering that, at a moderate estimate, it had run quite 15,000 miles, I considered that to give it justice it deserved a run over.

I left here on Wednesday morning, and ran straight through to Dingwall, where I stopped for breakfast and oiled up. I may say the car climbed the steep hill of the Ord of Caithness—usually a terror—practically the whole way on the second speed.

After leaving Dingwall I went straight on till near Pitlochry, where I heaved up to have a look at the tyres and to oil up spring shackles, and the engine running all the time.

From there I never stopped again till I got to the works in Hozier Street, Glasgow.

During the last 160 miles we ran through drenching rain, which made the roads very bad, and pitch dark. I calculated that the car did the distance in 14½ to 15 running hours—not a bad performance for a patient going to hospital.

It must also be borne in mind that neither my man nor myself had ever travelled the road before. How I got into Glasgow, and landed so near the works, without asking the way, is still to me a mystery.

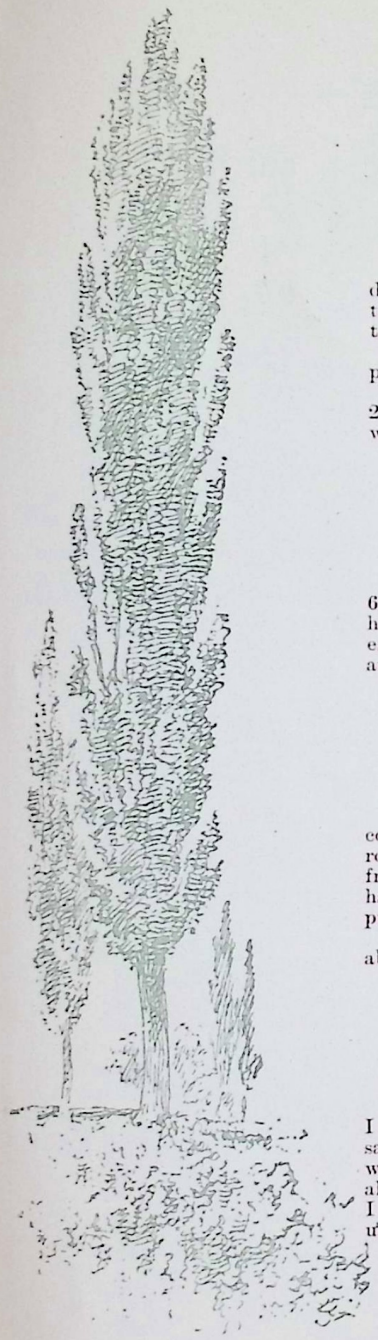
I am sorry I had not at first a motor meter fitted to the car, as I am sure there are few cars that I have seen that would be to the fore now had they done the work my one has done. It is, of course, out in all weathers, and night and day it must be ready for the road, which, I am pleased to say, it practically always is.

It has *now run with me over 29,000 miles*, and I have deemed it prudent to have it thoroughly overhauled, as some parts were wearing badly, especially the governor. With this object it is presently in the works in Glasgow.

As I said in starting this, my object in writing you is merely to give you a few particulars about my run, and not to puff up the car, which, being like good wine, "requires no bush."

Should you at any time care to hear further particulars of it, I will gladly furnish them, as I know you are interested in "Argylls."

Yours truly,
(Signed) SAM ELLIOT.



Poplar: France.

Testimonials—Continued.

Woodside, near Dover, 16*th February*, 1905.

Dear Sir,

I have been more than satisfied with the car since it was delivered to me in August, 1903, and with the exception of punctures, the only stops I have had on the road have been due to the petrol tap turning off owing to a nut being loose.

I have never met a hill up which the car would not take four persons with ease.

I certainly think that the 10 H.P. "Argyll" is the best 2-cylinder car on the market, irrespective of price. You can make what use you like of this.

Yours truly,
(Signed) W. H. CRUNDELL.

Stutton Lodge,
Ipswich, 30*th March*, 1905.

Dear Sir,

I have just sold my last year's 10 horse, and she has been 6,000 miles, without a mistake, and cost me nothing for repairs. I have not yet got delivery (through Mr. Hughes) of my new one, but expect she will be even better if possible. I never mean to have another make.

Yours truly,
(Signed) W. GODOLPHIN MILBANK.

Bromyard,
Worcester, 9*th August*, 1905.

Dear Sirs,

My car is running splendidly, and it has got an uncommonly good reputation in these parts. Since Christmas the only road stoppage I have had was once when a terminal got detached from wires wearing through the clip. It looks as good as new—it has done about 7,000 miles—and, odd to relate, I have never had a puncture.

I am told your cars are gaining ground in the public opinion about here, and I lose no opportunity of recommending them.

Yours truly,
(Signed) T. H. GILLAM.

Anglesey House, Alverstoke,
Hants, 24*th August*, 1905.

Dear Sir,

Having now used my 10-12 H.P. "Argyll" for four months I have much pleasure in informing you that it gives me complete satisfaction. It has run over 2,000 miles with only one breakdown, which was partly my own fault for having the commutator roller altered. I find she runs best on 6 volts, 4·3 was not so satisfactory. I have not had a single puncture, but the roads in Hampshire are uniformly good.

Yours truly,
Signed) R. BYRON, Captain.

Stutton Lodge,
Ipswich, 25*th April*, 1905.

Dear Sirs,

I am simply *delighted* with my new car. She runs like a 4-cylinder car, and her control is beautiful, and she seems to enjoy a hill. The body work and engine are beautiful specimens of first-class workmanship.

Yours truly,
(Signed) W. GODOLPHIN MILBANK.

46 Franklin Street,
Adelaide, 27*th May*, 1905.

Gentlemen,

We have had one of your 10-12 H.P. "Argyll" Tonneau cars in use for the last seven months. It has been in constant use, having run 9,616 miles. During the month of April it ran every day, with the exception of one day a week (when our driver had his day off). We covered 1,693 miles without a stoppage of any sort with the exception of one puncture. When we tell you this it must not be thought it has been used on good city roads; our city is so located that you cannot travel six miles in any direction without getting into the hills or the sea, and the car has been continually used on hilly and rough country roads.

We often travel 100 miles a day, and our longest journey has been 210 miles in the day. The car is in first-class condition, and when it goes away from our factory we never have the slightest doubt but that it will return in good time.

Yours truly,
(Signed) DUNCAN & FRASER.

Richmond Street,
Londonderry, 31*st March*, 1905.

Dear Sirs,

I drove my car for 2800 miles without having to stop once on the road to make an adjustment, and at the end had a stop of five minutes for a wiper on the commutator sticking. With the exception of that five minutes stop I have done 3240 miles without a stop either for mechanical or tyre troubles.

Yours truly,
(Signed) M. A. ROBINSON.

Lyneham, Yealmpton,
Plymouth, 6*th March*, 1905.

Gentlemen,

I have driven a 10-H. P. car of yours—purchased through the Bridgwater Motor Co.—since April of last year, in all weathers and over every sort of road—most of them bad. She has never failed me, and I have had no trouble.

Yours faithfully,
(Signed) W. E. P. BASTARD.

Testimonials—Continued.

Gateacre House,
GATEACRE, near Liverpool, *5th January*, 1905.

DEAR SIRS,

I enclose herewith a cheque in settlement of my account.

It may interest you to know that including the above account, my total expenses for everything for the car, tyres, and all repairs, etc., amount for a period of practically 12 months and a mileage of 7,000 miles, to £35. Of course I look after the car myself entirely.

Yours faithfully,
(Signed) J. GOODSON, Capt. R.S.A.

Home House, Datchet,
Nr. Windsor,
16th January, 1906.

DEAR SIRS,

In September, 1904, I purchased one of your 10-12 H.P. 2-cylinder cars, and you may be interested to know how magnificently she has behaved throughout.

She has run a few miles short of 8,000 miles in all weathers, and I have still the same set of tyres on the car. I have only had three punctures in all, and the tyres now require treading. This I think an exceptional figure, but may be explained in the fact that the car has habitually been carefully driven—but not always slowly, as may be judged from the following fact:—

Last year, in August, we started from Darlington at 6-10 a.m., and ran 25 miles out of our route (nearly to Hull) after passing York, and arrived at Datchet (near Windsor) at 8-20 p.m. the same day, making a run of 297 miles. During this run the car ran 15 miles in exactly 30 minutes in one case.

Not once during the whole 8,000 miles has the car stopped for any other cause than for three punctures, excepting the first day we had the car, when a front wheel seized.

We have carefully noted the above facts, and they are thoroughly accurate.

We have not yet used a single spare part or bolt or nut, but have once or twice tightened up nuts and replaced worn washers with new ones.

We are now renewing certain bearing pins to stop slight play through continual wear.

A month ago we examined the engine bearings, and they are absolutely perfect in condition, and seem like running almost indefinitely.

If you wish to use this you are quite at liberty to do so, with my name.

Yours sincerely,
(Signed) F. H. SMITH.

MOTOR UNION OF WESTERN INDIA.

CHALLENGE SHIELD,

Won by

DR. A. H. DEANE, on his 16-20 H.P. Argyll,
January 15-18, 1906.

Marchcroft, 224 Nithsdale Road,
POLLOKSHIELDS, 11th January, 1906.

DEAR SIRS,

I thought it might interest you to know that since receiving delivery of the 16-20 H.P. car, fully eighteen months ago, it has run over 16,000 miles. It has been on the road summer and winter, and we have never had a single involuntary stop for any mechanical trouble, which is a very good record.

I may say that during that time I have only been twice in a railway train, having done all my travelling and touring by motor. As you know, this is our second "Argyll," and we hope in spring to get delivery of one of your 30 H.P. cars.

With best wishes for the continued success of the "Argyll" cars.

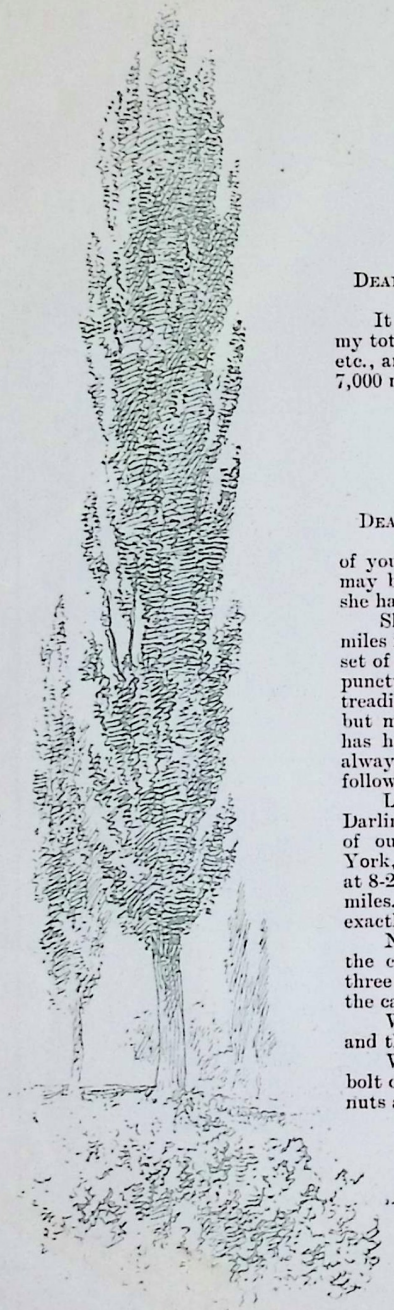
Yours sincerely,
(Signed)
MARGARET ANDERSON.

The West House,
THIRSK, 19th January, 1906.

DEAR SIRS,

It may interest you to hear that the car has completed over 22,000 miles, and is going as well as ever. I never have any trouble, and you know by your books how small my repair bill has been.

Yours truly,
(Signed) R. L. BOWER.



Poplar: France.

GLASS & CO., PRINTERS, GLASGOW.