

**Matchless**

**INSTRUCTION BOOK  
AND  
SPARE PARTS LIST**

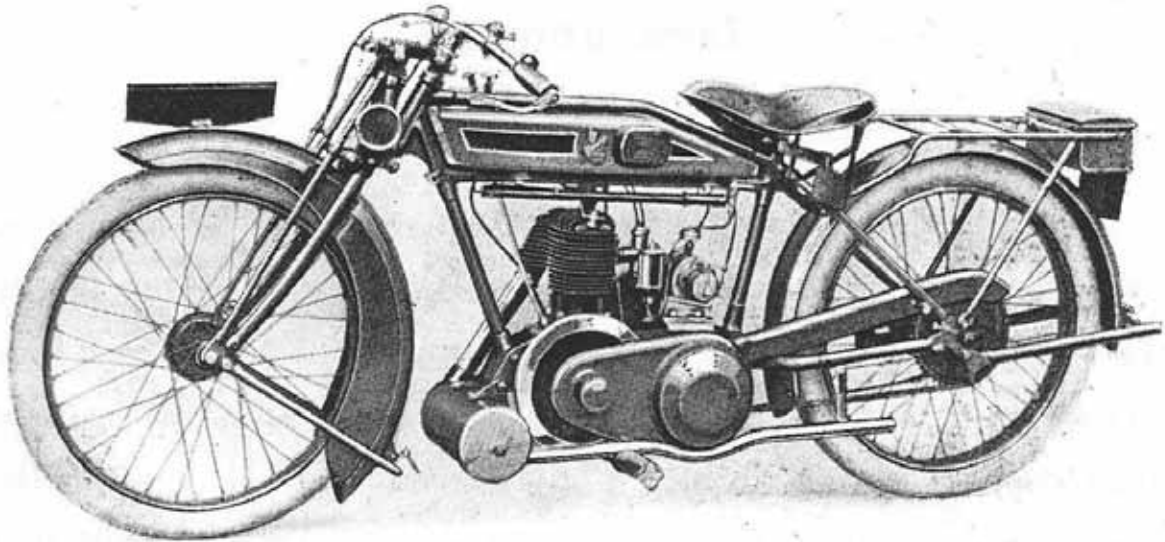
**1923**

**MODEL L**

# DRIVING AND ADJUSTMENT INSTRUCTIONS.

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*"Matchless" Model L.*

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## **H. COLLIER & SONS, LIMITED,** *Manufacturers,*

Registered Offices and Showrooms:

44-45, PLUMSTEAD ROAD, PLUMSTEAD,  
LONDON, S.E. 18, ENGLAND.

Nearest Station:  
WOOLWICH ARSENAL, S.E.C.R.

Factory:  
BURRAGE GROVE & MAXEY ROAD,  
PLUMSTEAD, S.E.

*Telegrams & Cables - "Matchless, Woolwich."*

*Telephone - Woolwich 17 & 18.*

Code { *A.B.C. 5th Edition,  
Bentley  
& Private Code*

## **INTRODUCTION.**

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Following our previous practice of endeavouring to obtain good service by making every purchaser thoroughly acquainted with the working of his mount, we issue herewith detailed description and adjustment advice on all important units, together with useful illustrations. A careful study of the contents will enable the possessor of a Model " L " to carry out any small adjustments that may be necessary from time to time, and so obtain the best service from his mount, which result is our earnest desire.

The Spares Section has been compiled to enable customers to correctly specify their requirements when renewals of any part are necessary (See Pages 15 and 16) for Instructions re Ordering Parts and particulars of Deposit Account System).

**H. COLLIER & SONS, LIMITED.**

# General Description.

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## STARTING.

Before describing the actual method of starting, it is perhaps advisable to explain the various (gear) lever positions. Neutral or free engine position of the gear is at a point where the extension on gear quadrant engages slot in gear lever, (about one-third forward from rearmost position) and at this position engine should always be started.

Ignition is advanced or retarded by means of a lever on the left side of handlebar. To advance spark this lever should be drawn inwards; for starting it should be about three-quarters advanced.

The throttle and air levers for carburettor both open inwards, the top lever operating the air and the lower and longer one the throttle. For starting, throttle should be about one-sixth open, and air completely closed. When starting from cold only, the air should be cut off from pilot jet. A small lever on side of carburettor controls this air and the closed position is with this lever pointing to left side of machine. The normal position is pointing towards rear wheel. Immediately the engine commences to fire this lever should be turned to its normal running position. A spring catch indicates each position.

The petrol is turned on when the lever on the tap to which the petrol pipe is attached is parallel to the body of the tap. Assuming that the tank has been filled with petrol and oil of the brand recommended elsewhere, and that all levers and taps have been set as above, to start engine first flood the carburettor by depressing the button on the float chamber until the petrol overflows, then raise the valve by lifting the left side handlebar lever, and at the same time, with the right foot give the kickstarter pedal a sharp and vigorous push downwards, releasing the valve lifter lever when the starter crank is about half-way down. This operation should not require at the most more than three or four attempts.

When the engine is started close the throttle slightly to check the engine speed, and seated on the cycle, disengage clutch by drawing inward the lever which is situated on the left side of handlebar. Then shift gear lever backward into first gear position, after which gently engage the clutch by releasing slowly the lever which has already been drawn inward.

When fairly under way, smartly declutch and simultaneously shift gear lever forward into second gear position, which is in middle of quadrant, at the same time releasing clutch lever gently but smartly as engine takes up the drive, after which repeat the operation to obtain top gear. In all changes of gear it is advisable to make certain that the gear lever is fairly in engagement with the notches in gear quadrant.

NOTE.—Any difficulty in starting will most probably be caused either by insufficient flooding, too liberal throttle opening or ignition not sufficiently advanced.

## DRIVING.

In general driving it is always advisable to advance the ignition as far as possible without causing knocking. When ascending a steep hill, as the engine slows, care should be taken to retard the ignition just sufficiently to prevent knocking, and if a change of gear then be made the ignition should be again advanced, as the speed of the engine is increased by the use of the lower gear. For descending exceptionally steep and dangerous inclines the middle gear should be engaged enabling the frictional resistance of the engine to assist in retarding the descent. We do not, however, under any circumstances, recommend using the bottom gear for this purpose owing to the strain imposed upon the rear driving chain. Although an efficient shock absorber is embodied in the clutch it is advisable to ease clutch slightly when rounding acute corners or when travelling slowly on top gear. If this practice is adopted from the first much unnecessary gear changing will be avoided.

### "DON'TS" IN DRIVING.

- DO NOT allow engine to labour on high gear on a steep gradient, and remember that an easier, faster, and better ascent can be made on the next lower gear.
- DO NOT make a practice of starting on second speed.
- DO NOT under any circumstances, allow the chains to run very slack or very dry. Either will soon cause trouble, and adjustments are easy.
- DO NOT force engine or drive above a maximum speed of 25 m.p.h. for the first 500 miles. Mention is made of this warning on account of the natural desire of a new owner to ascertain his mount's maximum capabilities. However, until all bearings are well run in, etc., it is advisable to refrain from speed bursts and the accompanying possibility of seized bearing, piston rings, etc. The first 500 miles of an engine's existence is far more important than the next 5,000.
- DO NOT ignore these instructions or think them too elaborate. They have been compiled at a great amount of trouble, and are the outcome of practical experience extending over many thousand miles riding.

## LUBRICATION.

It is practically impossible to lay down rules for engine lubrication owing to the varying conditions under which machines are driven. The amount of oil we recommend for a normal load and at an average speed of 20 m.p.h. is approximately one pumpful to every 7 miles. This amount must be increased proportionately to all conditions above normal. The quality of oil to be used, however, is of vital importance, and we particularly recommend our patrons to use only the very best brands.—Wakefield's Castrol 'C' or Speedwell's Sans Egal can be recommended.

Of equal importance to the engine is the lubrication of such parts as chains, fork spindles, hub bearings, etc., which should be dealt with systematically as follows:—

## CHAINS.

It will probably be found that the front chain will receive sufficient lubrication from the engine air release pipe, but however, this should be inspected periodically and oil injected at rear of chain guard if necessary. The rear chain should be removed occasionally and well soaked in paraffin especially in bad weather, and after carefully wiping should then be soaked in molten tallow. A good soaking in engine oil will serve as a poorer substitute.

## FORK SPINDLES.

Every 200 miles the lubricators of which there are nine should be filled with oil. (Bicycle lubricating oil will serve).

## GEAR BOX.

Every 1,000 miles the gear box filling plug should be removed, and the gear box filled to overflowing when the machine is standing level with gear oil (preferably).

Sturmev Archer Gear Oil or Mobiloil C Gear Oil recommended.

## HUBS.

Every 500 miles (or more frequently in continuous bad weather) the lubricators in the centre of both front and rear hubs should have about half a pumpful of oil forced through them. (Engine oil suitable).

In addition to the foregoing, all parts, such as brake and gear-rod, joints, etc., should receive a few drops of oil occasionally, particularly in bad weather. Bicycle lubricating oil or engine oil.

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# ADJUSTMENTS

## ENGINE.

**To Adjust Inlet Or Exhaust Tappets.** Hold tappet head (top large hexagon) with spanner provided, and slack off lock nut (bottom large hexagon). Then screw down or up, as required, until correct clearance is obtained, after which securely lock in position with lock nut.

NOTE.—Correct clearance between tappet head and valve stem when valve is on its seating is .005, approximately the thickness of an ordinary visiting card.

## TO ADJUST VALVELIFTER WIRE.

Slack off large knurled locking nut and screw small knurled part at the top, in or out until correct adjustment is obtained, after which, lock securely. Care must be taken when adjusting to see that the valve tappets are quite free when valves are down on their seatings.

### TO REMOVE CYLINDER.

First remove sparking plug and petrol pipe. Then unscrew exhaust pipe union nut and carburettor mixing chamber cap, then withdraw air and throttle valve from carburettor. Then remove the cylinder holding down nuts, and with the piston at the bottom of its stroke, lift off the cylinder.

The re-assembling should be carried out in the reverse order. Before refitting cylinder, the interior, together with the piston, should be carefully wiped with a clean calico rag, and afterwards smeared with perfectly clean engine oil. Too much care cannot be exercised to prevent the admission of any dust or foreign matter, and while on this subject we particularly warn owners against the usual practice of using the top of the tank as a resting place for nuts and pins, etc., which can at the least jar fall into crankcase interior while cylinder is removed.

The base of cylinder, just prior to refitting, should be smeared with a little seccotine or quick drying gold size.

After the whole job has been completed and tappets adjusted if necessary (see Instructions) it is advisable to go over all nuts, particularly cylinder holding down nuts.

### TO EXPOSE VALVE TIMING GEAR.

First remove front of magneto chain case, then remove the bolts securing both magneto chain sprockets, after which force off both sprockets by inserting a stout screw driver or lever behind magneto chain case. Then remove the back portion of magneto chain case, after which remove the six timing cover screws with a stout stiff screw driver. Then carefully draw off the timing cover by hand.

### TO REMOVE CAM WHEEL.

With timing gear cover already removed, the cam wheel, it will be found, can be easily withdrawn. It is advisable, however, before removing cam wheel to mark same, together with small timing pinion, where teeth of each engage.

NOTE.—For guidance the correct valve timing is as follows:

Exhaust valve commences to open 17 to 18m.m. before bottom of firing stroke.

Exhaust valve closed 2 to 3m.m. down next stroke (induction stroke).

Inlet valve commences to open 1m.m. before top of scavenging stroke.

Inlet valve closed 11m.m. up compression stroke.

### TO REPLACE CAM WHEEL.

Hold cam levers up with the fingers, and at the same time insert cam wheel with mark on same (see note above) coinciding with the mark on small pinion.

NOTE.—It is important that these marks coincide, otherwise the whole valve timing will be upset. It is also important that the timing gear cover screws are tightly screwed down. The edge of this cover should be smeared with seccotine or quick drying gold size just prior to re-assembling.

### TO REMOVE MAGNETO.

Remove magneto chain and sprockets, also magneto chain case. (See To Expose Timing Gear). Then detach sparking plug cable from sparking plug and all frame clips. Then disconnect magneto control wire and after removing the two bolts securing the magneto to platform, the whole is ready to be lifted clear.

NOTE.—When replacing, care must be exercised to fix magneto with sprockets exactly in line with one another. This should be tested with a straight edge (12inch rule will serve).

### TO RE-TIME MAGNETO.

Revolve the engine by hand until piston is approximately one-quarter of an inch from top of compression stroke (i.e. the stroke upwards immediately after inlet valve has closed).

NOTE.—To ascertain position of piston, remove compression tap and insert a piece of stout wire, preferably of sufficient length to reach piston when at bottom, then with ignition lever in fully advanced position, and magneto sprocket loose on shaft (the other sprocket being previously tightened), turn the magneto armature backwards until the points are just about to break. Holding carefully in this position tighten up the magneto sprocket bolt securely.

### TO DISMANTLE HUB BEARINGS.

After wheels have been removed (see Removing Wheels), withdraw brake cover plate. Then unscrew adjusting cone and from the opposite side draw out spindle. Care should be taken to prevent the balls from slipping into the hub interior, a good means of securing these balls while assembling is to apply a small quantity of good quality grease.

### TO ADJUST MAGNETO CHAIN.

It will be observed that magneto chain adjustment is obtained by sliding the magneto platform back upon the engine cradle plates, by means of the adjuster situated on the down seat tube.

Correct chain adjustment is such that when the top of chain is lightly pressed up and down a whip of about  $\frac{3}{8}$ in., to  $\frac{1}{2}$ in., is obtained.

To adjust chain slack off the two nuts on gear box studs and screw the chain adjuster referred to above in a clockwise direction to tighten or in the opposite direction to slacken, after which securely tighten down gear box stud nuts.

### TO INSPECT GEAR BOX INTERIOR.

To remove gear box end plate for examination of gears, disconnect the clutch control wire by slackening off the adjustment, when the nipple can be slipped out of the small operating arm. After removing the seven nuts securing cover plate, gently draw off the latter.

NOTE.—While the end plate is being removed, a pan or some receptacle must be placed underneath to catch the oil, the bulk of which will run out. When re-assembling, the faces of the end plate and gear box must be thoroughly cleaned, and a new paper washer used if the oil one has been damaged. Preferably coat with quick-drying gold size.



## GEAR ROD ADJUSTMENT.

To adjust gear rod, disconnect pin which passes through top yoke end of gear and slack off locking nut. Then screw yoke end up or down until correct adjustment is obtained after which replace yoke end pin and securely lock with locking nut.

When the gear is correctly adjusted the gear lever should move an equal amount either side of the neutral notch without engaging either the middle or low gear.

## CLUTCH ADJUSTMENT.

In the event of clutch slip being experienced the adjustment of clutch operating cable should be suspected. When correctly adjusted it should be possible to move the clutch actuating worm (part to which lower end of cable is attached) forward slightly with the fingers and if this free movement, cannot be felt the cable stop should be adjusted accordingly. If necessary the bolt securing the clutch worm lever may be slackened and the worm portion revolved slightly backward to provide slacker cable adjustment or forward to tighten.

## TO ADJUST FRONT CHAIN.

Slack off the two nuts securing gear box to aluminium bracket which rests on the engine cradle plates, also the bolts which pass through cradle plates immediately above gear box, and slide gear box in the required direction, by means of the adjuster which passes through the frame bracket at foot of saddle tube.

Correct adjustment of chain should allow a movement of  $\frac{3}{8}$  in., to  $\frac{1}{2}$  in., when chain is pressed up and down. Care must be taken after adjustment has been made to securely tighten the top gear box fixing nuts, and side bolts referred to above in the order mentioned.

**WARNING.**—The various nuts securing gear box must be carefully and thoroughly tightened after any adjustment has been made, otherwise the chain pull will show a tendency to tighten front chain and slacken rear.

## TO ADJUST REAR CHAIN.

Put down rear stand, then slack off rear wheel spindle nuts and bolt which secures brake cover plate to special lug on frame tube. Then adjust chain as required, by means of the bolts which pass through each of the fork ends, after which securely tighten spindle nuts and bolt securing brake cover plate. Tension of chain should be tried in a number of places, and the correct adjustment, (which should allow a whip of  $\frac{3}{8}$  in., to  $\frac{1}{2}$  in., when chain is pressed up and down), should be obtained for the tightest place.

**NOTE.**—Before tightening rear chain the adjustment of front chain should be inspected, and if attention to each is required the latter should be treated first.

## TO ADJUST FRONT FORKS.

**Adjustment to front fork spindles for side wear.** The need for adjustment at this part will be apparent by a creaking noise when steering head is turned abruptly with machine stationary.

First ascertain which spindle or spindles require adjustment, and slack off both lock nuts. Then by means of the squared end, turn the spindle clockwise to take up slack, or anti-clockwise to give more freedom, after which tighten up the lock nuts securely.

Care is necessary in this operation to guard against over-tightening when the fork will be stiff in action, and will most likely refuse to function.

**NOTE.**—The nut on squared end is left hand thread.

## TO ADJUST STEERING HEAD.

The steering head should be occasionally tested for adjustment by exerting pressure upwards from the extreme tips of the handlebars. Should any shake be apparent slack off handlebar clip bolt and tighten down the large nut which encircles the handlebar stem until all signs of slackness have disappeared, after which securely tighten clip bolt nut.

**NOTE.**—Want of adjustment will also make itself felt by a distinct tendency of the front wheel to wobble when the hands are removed from handlebar.

## TO REMOVE REAR WHEEL.

Put down rear stand. Then disconnect rear brake rod, and rear chain connecting link, after which release wheel axle nuts and remove the bolt securing brake cover plate. The wheel is then ready to be removed by drawing same backward until axle is free from fork ends.

## TO REMOVE FRONT WHEEL.

Put down front stand. Then disconnect front brake rod at bottom end and remove the bolt which secures brake cover plate to lug on fork girder. Then slack off axle nuts and with a stout screwdriver or tyre lever gently spring each side of the fork out, at the same time pressing wheel down, when the wheel will drop out.

**NOTE.**—It is advisable to first put rear stand down as front stand is not wide enough to provide a safe balance.

## TO ADJUST WHEEL BEARING.

To adjust either back or front wheel first loosen the left side axle nut. Then with the thin cone adjusting spanner, turn the cone slightly in a right hand direction, and when wheel is free from shake, tighten axle nut securely.

**NOTE.**—It is advisable to verify adjustment of bearing after axle nut has been retightened.

## PERIODICAL INSPECTION OF NUTS. (IMPORTANT).

It is advisable to periodically run over all important nuts. Much valuable time may be saved by a few minutes so spent at various intervals. The most likely parts to be requiring attention are given below in your own interests.

Wheel axle nuts, all mudguard nuts, nuts securing brake cover plate, engine bolt nuts, and stand bolts and nuts.

### CLEANING.

If the machine is used to any extent in bad weather, for mud removing, a small hose is almost indispensable, but when using same care should be exercised not to direct water on to the engine and magneto or other such parts. If a hose is not available, soak dirt with paraffin before removing. Do not attempt to rub or brush mud off an enamel surface when dry, or the polish will soon be destroyed. For engine, magneto, etc., a good stiff paint brush and a pot of petrol is preferable.

### EXHAUST VALVE STICKING.

Owing to the common tendency to over oil, it occasionally happens that the exhaust valve stem will collect sufficient deposit of congealed oil to cause sticking or sluggish action, when oil is cold. A simple remedy to overcome this trouble is to obtain a stiff brush and while revolving engine by means of the kickstarter, hold the brush soaked with paraffin against the valve spring. The paraffin will be carried up the valve guide and will rapidly soften the congealed deposit. Any accumulation of oil or deposit on valve springs or valve stems should be washed off occasionally with a stiff brush and a little petrol.

### STOPPAGES AND THE LIKELY CAUSES.

ENGINE SUDDENLY STOPS. Probable cause:

- Petrol low in tank.
- Dirt in petrol pipe.
- Choked jet.
- Water in float chamber.
- Choked petrol pipe or tap.
- Air lock in tank.

ENGINE RUNS BADLY. Probable cause:—

- Valve sticking.
- Weak valve spring.
- Plug points too close.
- Water on plug.
- Plug oily or sooted.
- Air leakage, (due to carburettor being disturbed).
- Paraffin in petrol, or bad petrol.
- Valve seating burnt
- Faulty magneto contacts.

ENGINE WILL NOT START. Probable cause:—

- Too liberal throttle opening.
- Valve stuck up.
- Water on plug.
- Choked jet.
- Valve or valves not seating properly.

### LEGAL MATTER.

To comply with the law relating to motorcycles the owner of a "Matchless" Model 'L' must:—

1. Hold a driver's licence, which can be obtained from the Chief Constable or Corporation of a County Borough, or from the County Council. The charge for this licence is 5/- yearly, and must be renewed annually from the date of issue. A motor-car driver's licence covers the driving of a motorcycle.
2. Apply to the Taxation Department of the Local Authority of the district in which the vehicle is to be ordinarily kept, for Inland Revenue License and Registration Form RF 1/2 (Motorcycles only). The address of the above Taxation Department can be obtained by enquiry at a Post Office.
3. The form RF 1/2 when obtained must be filled in and returned, accompanied by a remittance of £3/0/0 if used solo, and £4/0/0 if desired for use with sidecar, and in some districts evidence that the vehicle to be licensed is new and has not previously been registered may be demanded. Manufacturers' or Agents' invoice will serve.
4. See that his front plate is illuminated at night on both sides. See that his machine, if used with sidecar, is provided with a lamp on the extreme near side of same showing a light forward, and is also provided with a lamp which shows a red light to the rear. The law regarding this matter does not state any particular place in which the rear lamp must be fixed.
5. Never drive at a speed which is dangerous to the public.
6. Whenever necessary, give audible and sufficient warning by horn or other instrument of the approach of his motorcycle.

For registration purposes, the following particulars will be required:—

Weight of cycle unladen	...	...	220-lbs.
Weight of sidecar (if requested only)	...	...	100-lbs.
If sidecar is detachable (if requested only)	...	...	Yes.
Description or type of motorcycle	...	...	" Matchless "
			Motorcycle.
Position of front number plate	...	...	On front mudguard, visible from either side.
Position of rear number plate	...	...	On back-end of carrier behind saddle and visible from the rear.

## **GUARANTEE TERMS AND CONDITIONS.**

(As agreed by the Cycle & Motorcycle Manufacturers & Traders Union.)

We give the following Guarantee with our motorcycles instead of the Guarantee implied by statute or otherwise as to the quality of fitness of such machines for the purpose of motocyling, and such implied Guarantee being in all cases excluded. In the case of machines which have been used for "Hiring out" purposes, or in respect of which our trade mark or manufacturing number has been removed, 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 this Guarantee is to extend and be in force for three months only from date of purchase, and the damages for which we make ourselves responsible under this guarantee are limited to the replacement of any part which may have proved defective.

**WE UNDERTAKE**, subject to the conditions mentioned below, to make good at any time within three months any defects in these respects. As motor-cycles are easily liable to derangements by neglect or misuse, this Guarantee does not apply to defects caused by wear and tear, misuse or neglect.

Any motorcycle sent to us to be plated, enamelled or repaired will be repaired upon same conditions as if it were a new motorcycle, *i.e.*, we Guarantee that all precautions which are usual and reasonable, have been taken by us to secure excellence of material and workmanship, such Guarantee to extend and be in force for three months only from the time such work shall have been executed, and this Guarantee is in lieu, and in exclusion, of any common law or statute warranty, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

### **CONDITIONS.**

(As agreed by the Cycle & Motorcycle Manufacturers  
& Traders Union.)

If a defective part should be found in our motorcycles it must be sent to us, carriage paid, and accompanied by an intimation from the sender that he desires to have it repaired free of charge under our Guarantee, and he must also furnish us at the same time with the number of the machine, the name of the Agent from whom he purchased, and the date of purchase.

Failing compliance with the above, no notice will be taken of anything which may arrive, but such articles will lie here at the risk of the senders: and this Guarantee, or any implied Guarantee shall not be enforceable.

We guarantee only those machines which are bought either direct from us or from one of our duly authorised agents, and under no other conditions.

We do not guarantee the specialities of other firms, such as tyres, saddles, chains, lamps, etc., or of any component part supplied to the order of the purchaser differing from our standard specification supplied with our motorcycles or otherwise.

### **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 other than the sale of goods which they may have purchased from us; nor are they authorised to give warranty or make any representation on our behalf other than those contained in the above Guarantee.

### **MACHINE NUMBERS.**

The frame number will be found stamped on the right hand side of lug under saddle.

The engine number is stamped on the aluminium crankcase behind rear cylinder and approximately underneath carburettor float chamber.

H. COLLIER & SONS, LTD.

## INTRODUCTION.

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We have pleasure in presenting this Spares List for the "Matchless" 'L' Combination 1923 Model.

Every part likely to be required can readily be found by reference to illustrations contained therein.

Every part has a distinctive number, and care should be taken to order correct part, calling same by the name specified, and giving the part number.

Read carefully rules on page 16.

We are at all times willing to give estimates for parts or repairs, and also give to all customers the benefit of our advice regarding any query.

H. COLLIER & SONS, LIMITED.

## **TERMS OF BUSINESS.**

Our invariable rule in this department is nett cash with order. Remittance to £1 in value may be sent by Postal Order, but over this amount it is advisable to remit by cheque. Cheques to be made payable to H. Collier & Sons, Ltd., and crossed. When making remittance by Telegraph Money Order, the name and address of sender should be included, as, unless this is done, the Post Office do not give this information in the telegram. We frequently receive Telegraph Money Orders without sender's name, with the result that we cannot trace by whom the amount is sent, and we have to wait until customer writes complaining about delay before the matter can receive any attention. If remittance is not sufficient to pay for postage or carriage, goods will be sent "carriage forward" (Goods train).

All repairs accounts are strictly cash before delivery.

The prices in this list are subject to alteration without notice.

## **DEPOSIT ACCOUNT.**

We strongly advise all owners of "Matchless" motorcycles to take advantage of our "Deposit System." It often occurs that parts are required by return, but customers not have a current account, there is the inevitable delay of "pro forma" invoice being sent, and we have to wait receipt of his remittance before the goods can be despatched. This delay causes considerable inconvenience to the party concerned, and can be avoided by opening a Deposit Account.

A remittance of not less than £4 entitles a customer to this form of account, and when goods are ordered by 'phone, telegram or letter they will be despatched at the earliest possible moment by the quickest route. Invoices will be sent for all goods supplied, and a statement will be rendered showing amount of deposit in hand when required, and customers will be notified immediately their deposit becomes exhausted, so that they may renew same. We are at all times prepared to return balance of deposit upon request.

Kindly note, when ordering, to mention "Deposit" or quote reference as shown on monthly statements.

## **REPAIRS.**

In case of extensive structural repairs being required, we strongly advise all owners to send machines to our works for attention. It is obvious that manufacturers can do this kind of work better than any repairer.

## **OVERHAULING.**

When sending us a complete motorcycle, engine, gear box or other part with the request that we overhaul same, we understand by the term "overhaul" that it is to be entirely dismantled, thoroughly renovated, any worn part renewed and put in perfect working order. In case a customer desires only certain parts attended to, explicit instructions should be given us to that effect, otherwise cost may be far in excess of what is anticipated.



## **ESTIMATES.**

It is becoming a general practice for customers when sending their engines or complete motorcycles to us for repairs, to request a detailed estimate for the necessary repairs before proceeding with the work.

We are always pleased to furnish these estimates, but it must be distinctly understood that only approximate quotations can be given, as, when re-erecting, it is often found that other repairs or new parts are necessary, which it was impossible to locate when dismantling.

In some instances, when an estimate has been submitted, several of the items quoted for are questioned as being unnecessary or not required. We may say that we only include in our quotation new parts and repairs that we consider essential to make the machine suitable and satisfactory for the road.

We much prefer not to undertake a repair (neither do we accept any responsibility) when the estimate for same has been curtailed by the owner, as the parts he may delete are probably the most important to obtain good results.

If an estimate is not accepted, i.e. the parts returned to the owner in their original condition, a nominal charge is made for taking down and re-assembling.

All repair accounts are strictly cash before delivery.

## **RULES TO BE OBSERVED.**

1. Parts sent to us for repair, replacement, or as pattern must bear distinctly sender's full name and address. Instructions regarding same must be sent under separate cover, otherwise goods may lie at our works and not be unpacked until instructions regarding same are received.

2. All goods must be consigned to us carriage paid.

3. Do not enclose cash (whether in the form of coin or paper) with goods. Remittance should be sent by letter post for your own protection.

4. Customers having no account with us should not fail to remit at the time of order and also to include postage.

5. When customer has no account, a Telegraph Money Order will ensure immediate attention.

6. When making enquiries respecting any part on order or repair it is advisable to quote date of order.

7. In case of doubt regarding correct names of part required it is advisable to send old part as pattern.

## **DAMAGE IN TRANSIT.**

Our responsibility ceases when goods leave our works, and claims must be made on carriers in the event of damage occurring in transit. All goods easily damaged by rough handling are consigned (when by rail) at Railway Company's Risk, and all complete combinations consigned by rail, whether crated or otherwise, are until present conditions of transport improve, insured against damage in transit. Any such damage should be immediately reported.

NOTE.—By Railway Companies special regulations, unless damage in transit is reported withing 3 days from receipt of goods, no claim can be entertained.

## ENGINE PARTS.

## A.

Axles (see flywheels) ... ..

## B.

## BUSHES.

		£	s.	d.
811	Bush for crankcase (flywheel) ... ..		6	0
1924	Bush for crankcase (timing side) ... ..		6	0
904	Bush for camwheel (crankcase side) ... ..		2	6
899	Bush for camwheel (cover side) ... ..		2	6
971	Bush for exhaust lifter (crankcase side) ... ..		1	6
1929	Pin for above (see timing gear) ... ..		1	3
808	Bush for gudgeon pin ... ..		3	0
1100	Breather or release valve (see page 20) (less pipe) ... ..		3	0

## C.

7511	Cylinder only ... ..	3	12	6
956	Cylinder holding down stud ... ..			3
1767	Nut for same ... ..			6
1959	Cylinder union nut for exhaust pipe ... ..		3	6
1957	Cylinder induction nipple ... ..		2	3
1958	Lock nut for induction nipple ... ..			6
1954	Cylinder jointing washer ... ..			1
R/59A.	Cylinder compression tap ... ..		2	6
852	Cylinder compression C. and A. washer ... ..			2
6036	} Crankcase (flywheel side), ... ..			
6037		} Crankcase (timing side), not supplied separately) per pair ... ..	4	5
L.E.16	Crankcase bolt (short) ... ..			
L.E.14	Crankcase bolt (long for magneto case) ... ..			9
L.M.D.10	Distance tube for above ... ..			5
S.T.D.3	Crankcase bolt nut (each) ... ..			3
6033	Crankcase timing cover (see timing gear) ... ..		18	6
6020	Connecting rod (see also flywheels, page 18) ... ..		10	6
6003	Camshaft (see timing gear) ... ..		15	6
822	Cam lever (inlet) ... ..		5	6
7004	Cam lever (exhaust) ... ..		5	6
	For other timing gear parts, see page 20			

## D.

801	Drain plug for crankcase ... ..			4
1968	Dowell pin for timing cover (screwed) ... ..		1	0
1967	Nut for same ... ..			2

## E.

	Engine bolts (see engine plates P.22)			
1596	Exhaust valve (see valve P.21)... ..		6	6
L.E.1	Exhaust pipe (see silencer P.20) ... ..		2	6
L.E.1955	Exhaust tappet (see timing gear P.20) ... ..		3	5

**F.****FLYWHEELS AND AXLES, ETC.**

6038	Flywheel (external) ... ..	2	5	0
6034	Flywheel (or crankshaft disc) (internal each) ...	1	2	6
1960	Flywheel axle or crankshaft (flywheel side) ...	10	6	
1970	Flywheel axle or crankshaft (timing side) ...	7	6	
1930	Flywheel crank pin ... ..	6	6	
1953	Nuts for axles or crank pin recessed (each) ...		8	
856	Grub screw for same (each) ... ..		1	
857	Flywheel (external) fixing nut ... ..		9	
1573	Flywheel (external) key only ... ..		6	
1963	Flywheel extractor cap ... ..	4	6	
1962	Washer for use with same (see also Tool Kit)		4	

**G.**

1966	Gudgeon pin only ... ..	3	6	
1916	Gudgeon pin caps (each) ... ..		6	
1966/1916	Gudgeon pin with caps fitted ... ..	4	6	
808	Gudgeon pin bush (see bushes) ... ..	3	0	
1956	Guide for tappet (inlet or exhaust) ... ..	4	6	
773	Guide for valve (inlet or exhaust) ... ..	2	0	

**I.**

845	Inlet valve (see valves) ... ..	6	0	
773	Inlet valve guide (see valves) ... ..	2	0	
1934	Inlet valve cylinder cap (see valves) ... ..	4	6	
1955	Inlet tappet (see valves) ... ..	2	3	

**K.**

1573	Key for flywheel (external) ... ..		6	
1023	Key for small timing pinion ... ..		2	

**M.**

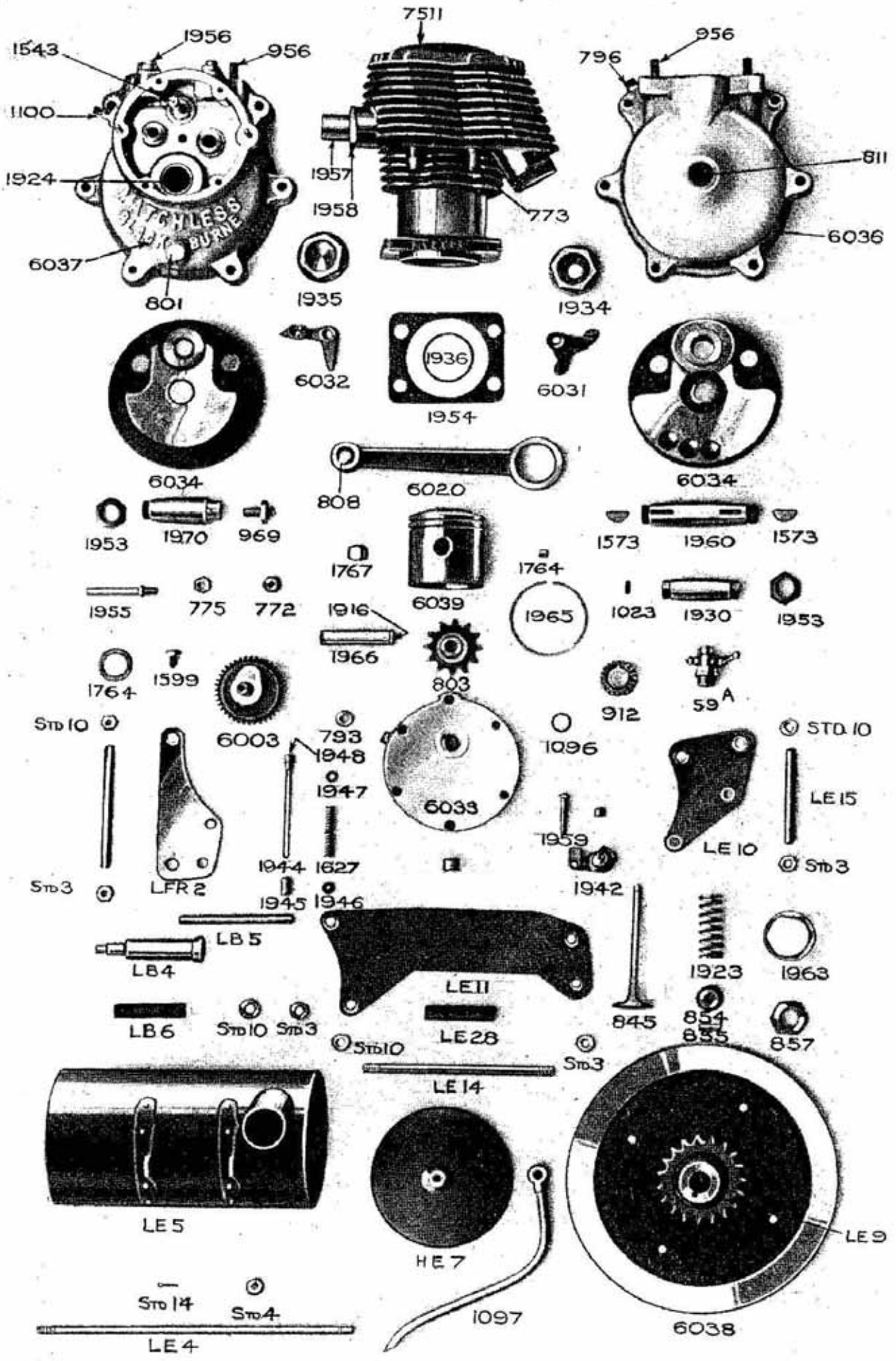
Magneto and all parts (see P.34)

**O.**

801	Oil drain plug ... ..		4	
L.E. 31	Oil pipe complete ... ..	3	0	
H.E. 47	Oil pipe union nuts only (each) ... ..		6	
.. 46	Oil pipe nipples only (each) ... ..		3	

**P.**

6039	Piston only ... ..	1	7	6
1965	Piston ring (each) ... ..		1	6
6039/1966 1965/1916	Piston complete with gudgeon pin and rings ...	1	15	0
912	Pinion (small timing) ... ..		12	6
969	Locking screw or bolt for same ... ..		1	0



		£	s.	d.
1023	Key for pinion			2
1929	Pin for exhaust lifter cam			4
1543	Pin or axle for cam lever (see timing gear)	4		6
1928	Nut for same			4
1764	Packing washer for connecting rod			9
	Petrol pipe (see carburettor)			

**R.**

1100/775	Release valve complete with pipe	6		0
1100	Release valve complete less pipe	3		0
1097	Release valve pipe and swivel top	3		0
775	Release valve nut			2
1096	Release valve fibre washer			1
L.E.58	Rollers (Hoffman) for connecting rod (each)			4

**S.**

S.P.1	Sparking plug with washer	5		0
S.P.IA.	Sparking plug copper and asbestos washer only			2
1923	Spring for inlet valve			6
1923	Spring for exhaust valve			6
1627	Spring for exhaust lifter			3
L.E.9	Sprocket transmission (19 teeth)	3		6
848	Screw for timing cover (short)			4
803	Sprocket for magneto drive (see magneto)	5		0
1944	Shackle rod for exhaust lifter (see valves)			6
L.E.29	Silencer complete	8		3
H.E.7	Silencer end cap (each)			11
L.E.5	Silencer barrel with straps	5		6
L.E.4	Silencer central long bolt			11
S.T.D. 4	Nuts for same (each)			2
S.T.D.14	Split pin for same			1
L.E.1	Silencer exhaust pipe	2		6
1959	Silencer exhaust pipe union nut	3		6
L.E.2	Silencer exhaust tail pipe assembled	5		9
H.M.7	Bolt for same			3
S.T.D.5	Nut for bolt			2

**T.**

1956	Tappet guide (inlet or exhaust)	4		6
L.E.1955	Tappet complete (inlet or exhaust)	3		5
1955	Tappet only	2		3
772	Tappet head only	1		0
	Tappet head lock nut			2
6033	Timing gear cover	18		6
1969	Timing gear cover screws, long, (each)			4
899	Timing gear cover bush (see bushes)	2		6
1929	Timing gear cover (Dowell pin for valve lifter)	1		3
912	Timing pinion small	5		6
969	Lock screw for same	1		0
1023	Timing pinion key			2
6003	Timing gear cam shaft	15		6

		£	s.	d.
822	Inlet cam lever or rocker	...	5	6
7004	Exhaust cam lever or rocker	...	5	6
1548	Cam lever axle	...	4	0
1928	Nut for same	...		4
798	Packing collar for cam lever	...		6

## U.

796	Union for oil pipe complete	...	1	0
796A.	Union for oil pipe body only	...		9
796B.	Union for oil pipe nut only	...		4
H.E.46	Nipple for oil pipe (each)	...		3

## V.

845	Valve (inlet)	...	6	0
1596	Valve (exhaust)	...	6	6
1923	Valve spring	...		6
854	Valve spring cap	...	1	0
855	Valve cotter	...		2
1934	Valve cap for cylinder (inlet)	...	4	6
1935	Valve cap for cylinder (exhaust)	...	4	3
1936	C. and A. washer for same (each)	...		3
L.E.845	Valve complete with spring cap and cotter (inlet)	...	7	8
L.E.1596	Valve complete with spring cap and cotter (exhaust)	...	8	2
1955	Valve tappet (see tappets P.20)	...	2	3
773	Valve guide (each)	...	2	0
1951	Valve lifter barrel (screwed)	...	3	0
1950	Valve lifter (adjusting screw or cable stop)	...	1	6
1952	Lock nut for adjuster screw	...		6
1939	Guide for shackle rod	...	1	6
1940	Valve lifter cam	...	6	6
1941	Valve lifter lever	...	2	0
1942	Valve lifter shackle complete	...	1	10
1944	Valve lifter shackle rod only	...		6
1943	Pin for same	...		2
1945	Distance piece for valve lifter spring	...		3
1946	Felt washer	...		1
1947	Collar for felt washer	...		8
1948	Shackle rod nipple	...		2
1949	Shackle rod nipple for lifter cable	...		2
L.E.35	Valve lifter cable (inner and outer)	...	2	10
L.E.12	Valve lifter cable (inner only)	...		9
L.E.13	Valve lifter cable (outer only)	...	2	1
	Valve lifter lever (see Handlebars)	...		

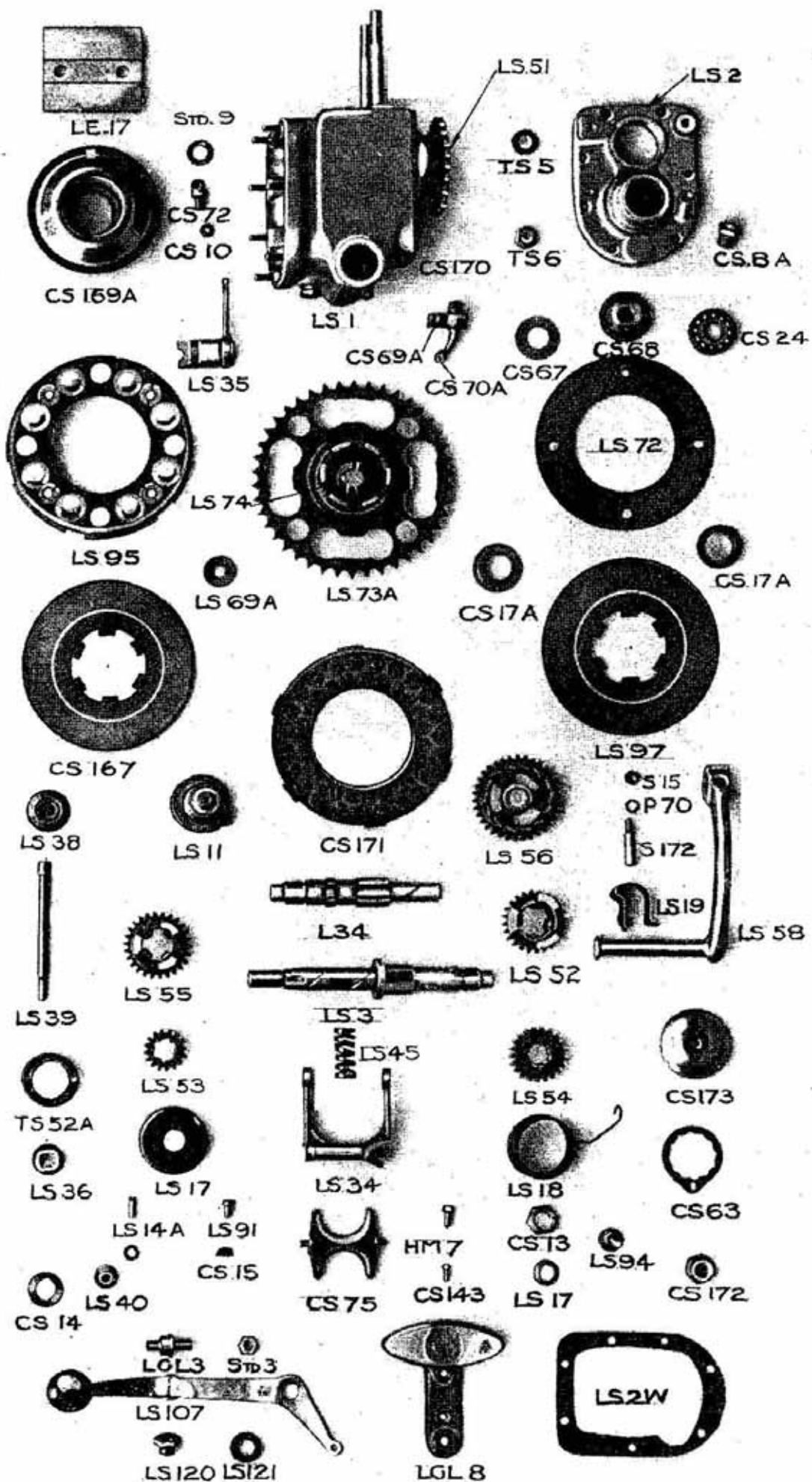
## ENGINE PLATES AND BOLTS.

L.E.	11	Rear engine plate, (left or right)	...	1	8
"	10	Front engine plate (left or right)	...		9
L.F.R.	2	Engine plate for footrest (left side)	...		8
"	2	Engine plate for footrest (right side)	...		8

			£	s.	d.
L.E.	16	Engine plate bolts for crankcase (short) (each)			7
"	14	Engine plate bolt (long) for magneto chain case			9
S.T.D.	3	Nuts for above (each) ... ..			3
L.E.	15	Engine plate bolt for frame lug (front) ... ..			5
L.F.	61	Engine plate bolt for frame lug (rear top) ... ..			5
L.E.	15	Engine plate bolt for frame lug (rear lower) ... ..			5
L.F.	61	Engine plate bolts for clamping gear box ... ..			2
S.T.D.	4	Nuts for above (each) ... ..			2

### GEAR BOX.

L.S.	1	Gear box shell only ... ..	2	15	0
"	2	Gear box end plate ... ..	1	2	6
"	3	Gear box main driving shaft ... ..	14	6	
"	4	Layshaft only ... ..	14	6	
"	5	Main shaft high speed or sleeve pinion ... ..	18	0	
"	6	Middle gear sliding pinion for main shaft ... ..	9	0	
"	7	Middle gear sliding pinion for layshaft... ..	11	0	
"	8	Layshaft pinion ... ..	6	0	
"	9	Main shaft pinion ... ..	4	6	
"	10	Low gear and kickstarter pinion ... ..	11	0	
"	11	Kickstarter shaft or axle   supplied only			
"	12	Layshaft bush   assembled ... ..	13	6	
"	13	Kickstarter pawl ... ..	1	4	
"	14A	Kickstarter pawl pin ... ..			3
"	17	Kickstarter crank return spring cover ... ..	1	2	
"	18	Kickstarter Crank return spring ... ..	1	2	
"	19	Kickstarter Crank stop spring ... ..			8
"	20A	Kickstarter crank relief cam ... ..			3
"	31	Sprocket for rear chain ... ..	10	6	
"	32	Ball bearing cup ... ..			4
"	33	Kickstarter axle bush ... ..	2	3	
"	34	Striking gear fork ... ..	7	0	
"	35A	Striking gear lever ... ..	8	0	
"	36	Oil retainer cap ... ..			3
"	37	Rocking shaft lever bush ... ..	2	3	
"	38	Rocking shaft end bush or cap ... ..	1	9	
"	39	Rocking shaft ... ..	1	4	
"	40	Rocking shaft nut ... ..			10
"	45	Compensator spring for rocking shaft ... ..			5
"	75	Striking fork plate or slipper ... ..	2	6	
L.E.	3	Gear box top guide plate ... ..	6	9	
S.	172	Kickstarter crank cotter pin ... ..			3
S.	15	Nut for same ... ..			2
P.	70	Washer ... ..			1
L.S.	2A	Gear box end plate paper washer ... ..			1
"	58	Kickstarter crank ... ..	13	6	
C.S.	24	Ball bearing for layshaft or main shaft ... ..	9	3	
"	8A	Gear box filling or drain plug ... ..			10
"	67	Packing or adjusting washers (each) ... ..			1
T.S.	6	Gear box fixing stud nut (each) ... ..			4
"	5	Spring washer for same (each) ... ..			3





				£	s.	d.
T.S.	4	Gear box stud (each)	...			6
C.S.	10	Gear box end plate nuts (each)	...			3
"	9	Gear box end plate studs (each)	...			4
"	143	Bolt for securing kickstarter crank spring	...			3

### CLUTCH PARTS.

L.S.	50B	$\frac{1}{2}$ rollers (each)	...			2
"	69A	Rubber shock absorber (each)	...			3
"	70	Clutch driver	...		9	0
"	71	Clutch spring cup	...		3	0
"	72	Clutch sprocket back plate	...		2	9
"	73A	Clutch sprocket $\frac{1}{2} \times \frac{1}{4}$	...	1	7	6
"	74	Clutch centre hub	...		16	0
"	75	Sprocket securing ring	...			6
"	76	Clutch driver screw (each)	...			2
"	77	Clutch outer cover	...		1	0
"	82B	Clutch rod	...		1	0
"	89	Clutch sprocket split ring	...			6
"	94A	Thrust pin	...		1	0
"	96	Clutch back plate	...		2	9
"	116	Clutch inserts (per dozen)	...			6
C.S.	13	Axle nut	...			2
"	14	Axle nut lock washer	...			9
"	167	Clutch centre plate (flat)	...		2	9
"	168A	Clutch outer plate	...		2	9
"	171	Clutch friction ring (with inserts)	...		3	6
"	172	Clutch spring adjuster nut	...		1	0
"	173	Clutch end cap	...		1	6
T.S.	55	Clutch spring collar (fits over C.S.172)	...			8
"	52A	Clutch spring	...		2	0
C.S.	169A	Clutch spring cup	...		3	0
"	68	Clutch worm nut	...		6	0
"	69A	Clutch worm	...		2	0
"	70A	Clutch worm lever	...		2	9
J.	200	Clutch worm lever pinch bolt	...			2
C.S.	72	Clutch wire stop stud	...		1	3
"	63	Chain sprocket locking plate	...			5
S.	35	Screw for same	...			1
L.S.	79	Sprocket fixing nut	...		1	2
C.S.	15A	Clutch driving key	...			4
L.E.	52	Clutch cable inner and outer (with nipples)	...		5	6
"	53	Clutch cable outer only	...		3	6
"	54	Clutch cable inner only	...		1	6
"	55	Clutch cable return spring	...			3
C.S.	100B	Clutch lever (see handlebars) complete	...		14	6
"	100	Lever portion only	...		4	6
"	104	Lever fulcrum pin	...			3
C.S.X.	90	Lever clip screw (each)	...			2

### GEAR CHANGE PARTS.

L.G.L.	10	Gear lever complete with gate	...	1	15	0
"	8	Gate with tank plate only	...		7	6
"	6	Gate fixing bolt	...			3

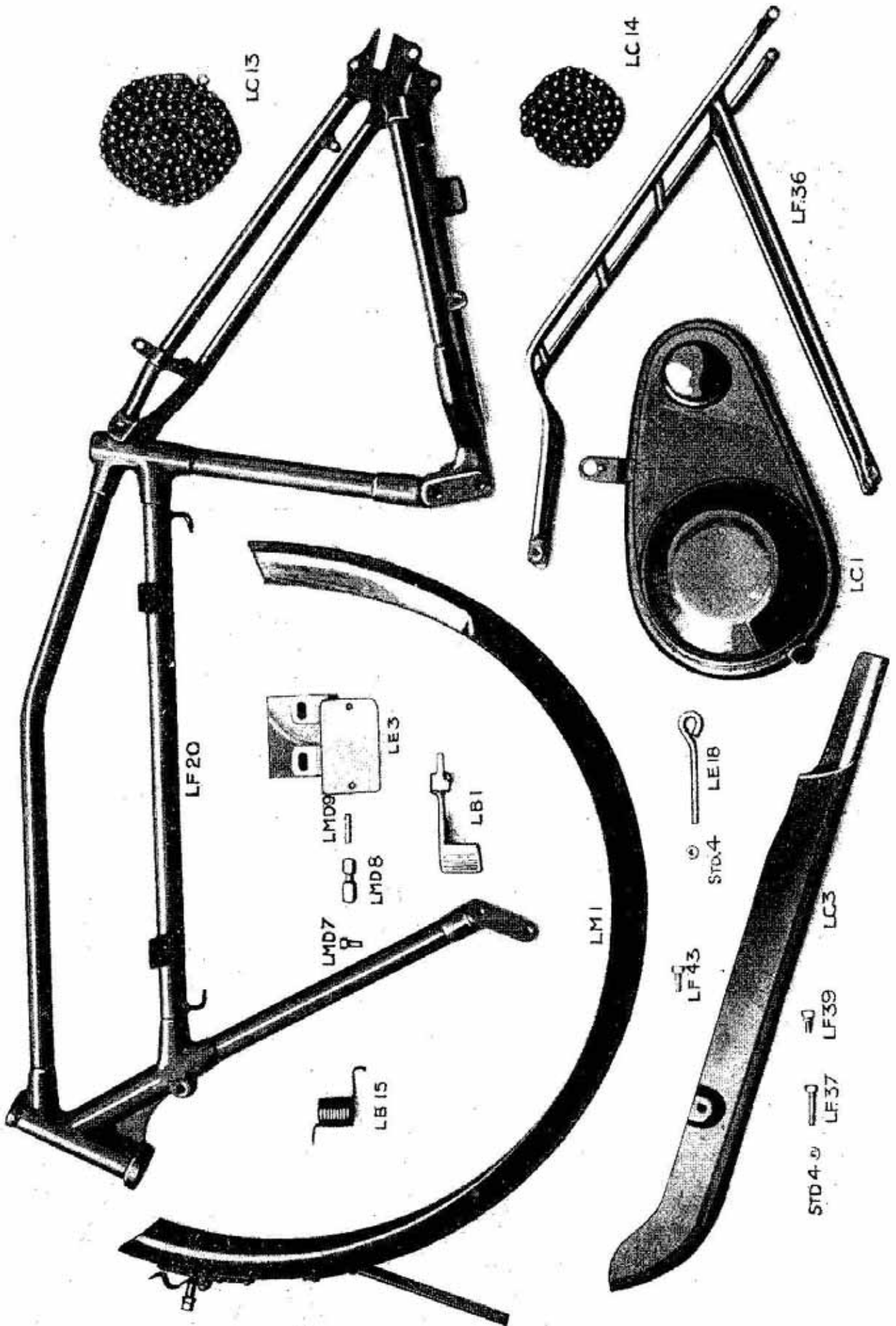
			£	s.	d.
L.G.L.	3	Fulcrum stud for gear lever	...	1	0
L.S.	120	Cap nut for same	...		6
"	121	Spring washer	...		4
S.T.D.	5	Nut for gate fixing stud	...		2
L.S.	107	Gear lever with ball	...	5	6
L.G.L.	9	Gear rod complete	...	4	11
C.S.	87	Gear rod yoke end (each)	...	1	0
"	37	Lock nut for same	...		2
"	97	Yoke end pin	...		3
"	108	Split pin for same (per dozen)	...		6

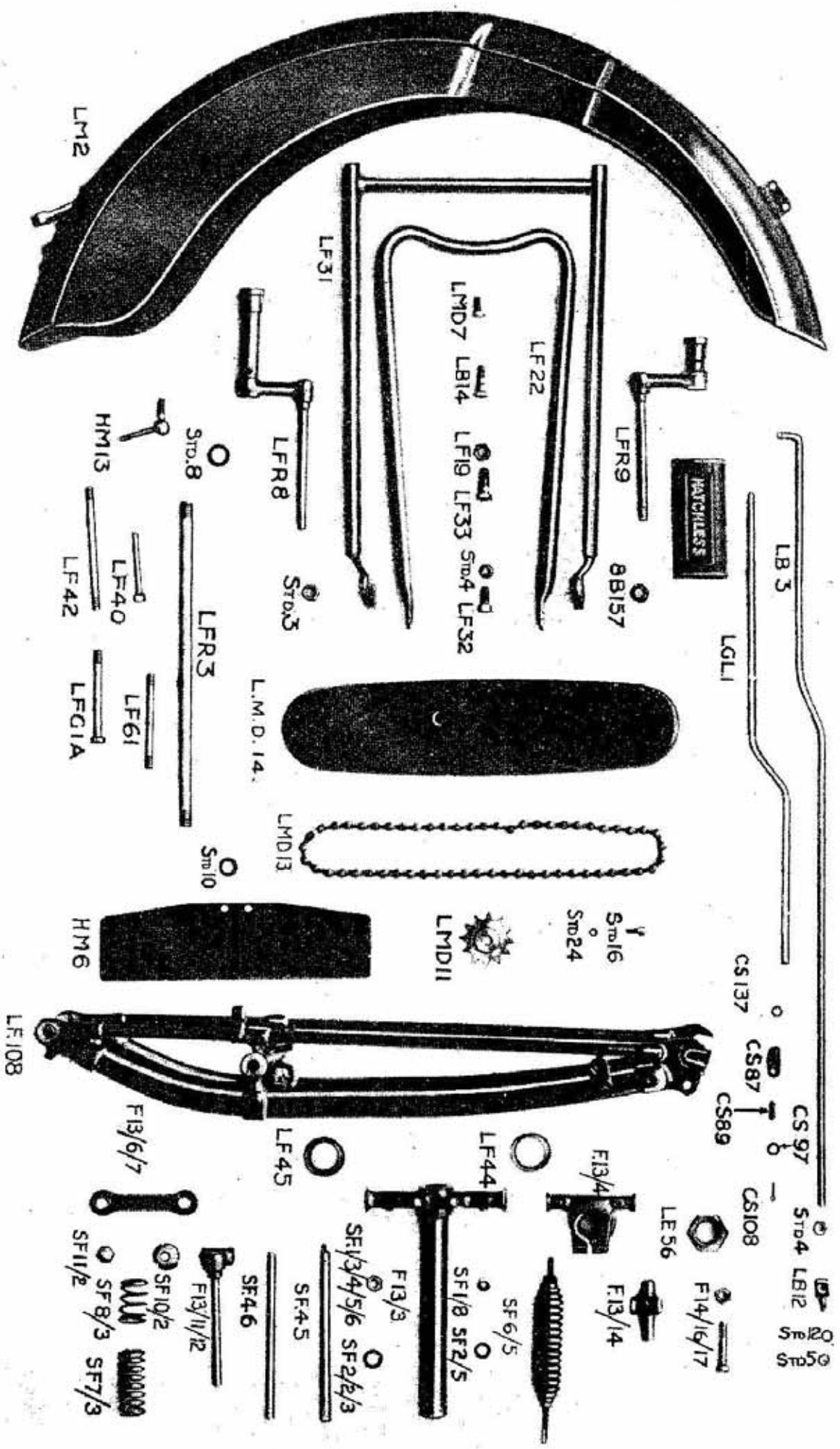
### FRAME AND FORKS.

L.F.	20	Complete frame	...	5	2	6
"	44	Steering head race (each)	...	1		9
"	42	Seat lug bolt	...			5
S.T.D.	4	Nuts for same	...			2
L.F.	40	Rear chain adjuster bolts (see also chains)	...			9
"	73	Front forks complete with stand and mudguard	...	4	19	6
"	13	Front forks complete less stand and mudguard	...	3	12	6
F.	13/3	Fork crown and stem	...	8		4
L.F.	56	Fork crown and stem nut for head adjustment	...	1		2
F.	13/4	Fork head clip	...	3		1
F.	14/16/17	Pinch bolt for same	...			4
		Nut for bolt	...			2
F.	13/13/14	Spring buffer cross piece with lubricator (pair)	...	2		5
S.F.	15/1	Lubricator only	...			2
F.	13/11/12	Spring buffer T piece (back) and spindle (pair)	...	2		11
S.F.	7/3	Back buffer spring	...			8
"	8/3	Buffer spring thrust nut (pair)	...			8
"	10/2	Front buffer spring	...			5
"	11/2	Cap lock nut for above (pair)	...			8
"	6/5	Vertical coil spring complete	...	2		10
"	9/2	Vertical coil spring screw	...			2
"	1/8	Vertical coil spring screw nut (per dozen)	...	1		7
F.	13/11/12	Spring buffer T piece (front) with sleeve (pair)	...	2		11
S.F.	15/1	Lubricator for same	...			2
L.F.	13/A	Front fork (girder portion only) with lubricators	...	2	2	1
L.F.	115	Crown and stem with special bracket for electric head lamp	...	18		0
"	45	Fork crown ball race	...	1		9
"	71	Complete set of steering head balls	...			7

### LUGGAGE CARRIERS AND TOOL BOX.

L.F.	36	Complete luggage carrier	...	14		3
"	43	Bolt for fixing same, top	...			2
S.T.D.	4	Nut for above	...			2
"	11	Washer	...			1
H.M.	7	Bolt for fixing carrier to rear mudguard	...			3
S.T.D.	5	Nut for same	...			2
L.F.	59	Bottom carrier fixing bolt	...			2
J.F.	84s	Luggage carrier tool box (see also tool kit)	...	15		9





			£	s.	d.
H.M.	7	Bolts for fixing same (each)	...	...	3
S.T.D.	5	Nut for above	...	...	2
J.F.	86s	Rear number plate (see also mudguards)	...	1	1

### MUDGUARDS AND MUDSHIELDS.

L.M.	2	Front mudguard	...	15	6
H.M.	7	Front mudguard fixing bolt (each)	...		3
S.T.D.	5	Nut for same	...		2
H.M.	15	Stand fixing wing screw	...	1	8
L.M.	1	Rear mudguard	...	12	9
L.F.	41	Rear mudguard fixing bolt for chain stay bridge	...		6
"	41	Rear mudguard fixing bolt for top stay bridge...	...		6
S.T.D.	5	Nut for above	...		2
H.M.	7	Bolt for fixing rear mudguard to carrier...	...		3
S.T.D.	5	Nut for same	...		2
H.M.	7	Bolt for fixing rear mudguard to tool box (each)	...		3
S.T.D.	5	Nut for above	...		2
8B.	175	Rear mudguard stand clip stud	...		4
S.T.D.	5	Nut for same inside mudguard	...		2
8B.	173	Stand clip spring	...		1
8B.	171	Stand clip spring cup nut	...		3
S.T.D.	5	Lock nut for above	...		2
L.M.	21	Mudshields complete with all fittings (standard)	...	12	6
"	22	Mudshields complete with all fittings (electric)	...	12	6
"	12	Left side shield only (standard)	...	4	9
"	19	Left side shield only (electric)	...	4	9
"	10	Right side shield only, standard or electric	...	4	9
"	18	Top mudshield rod	...		10
S.T.D.	4	Nuts for same (each)	...		2
"	11	Washers for same (each)	...		1
L.M.	15	Top mudshield rod distance tube (right)	...		5
"	16	Top mudshield rod distance tube (left)	...		5
"	13	Bottom mudshield rod	...		8
S.T.D.	4	Nut for same (each)	...		2
"	11	Washer for same (each)	...		1
L.M.	14	Bottom mudshield rod distance tube (right)	...		5
"	17	Bottom mudshield rod distance tube (left)	...		5

### TANK AND FITTINGS.

L.T.	5	Tank complete with all fittings	...	3	15	6
"	2	Tank less all fittings	...	2	6	0
H.T.	9	Petrol tap and filter	...		4	2
"	9A	Filter only	...			6
"	10	Petrol drain tap	...		1	9
L.E.	39	Petrol pipe (for AMAC carburettor)	...		4	0
"	30	Petrol pipe (for B. & B. carburettor)	...		4	0
H.T.	12	Petrol tank filler cap (glass top)	...		2	0
"	12A	Glass top only for above	...			9
"	11	Gauze strainer for petrol tank	...		1	9
"	13	Oil tank filler cap	...		1	7
"	15	Tank fixing bolts (each)	...			6
"	16	Tank fixing bolt rubber pad	...			5

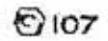
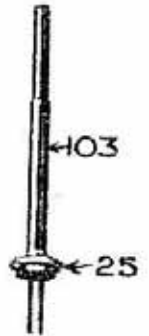
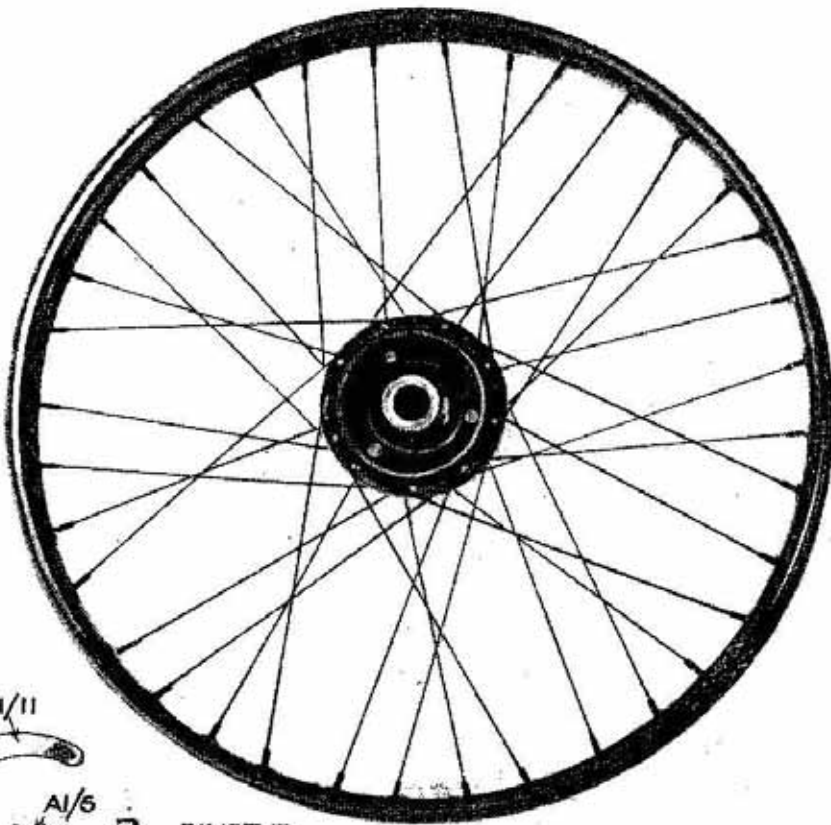
			£	s.	d.
	17	Tank fixing bolt washer ... ..			2
L.T.	3	Semi-Automatic oil pump complete ... ..	1	3	6
S.T.D.	15	Fixing screws for above (each) ... ..			2
L.T.	12	Leather jointing washer ... ..			2
H.T.	29	Oil pump glass barrel ... ..		1	0
"	1177	Oil pump regulating screw ... ..		2	0
"	30	Oil pump plunger knob ... ..			9
"	1179	Oil pump plunger only ... ..		1	3
L.T.	13	Oil pump leather cup washer ... ..			3
"	4	Rubber knee pad (each) ... ..		2	0
"	11	Rubber knee pad plate ... ..			3
J.T.	7/S	Rubber knee pad fixing screw ... ..			2

### STANDS.

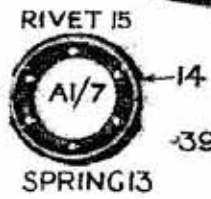
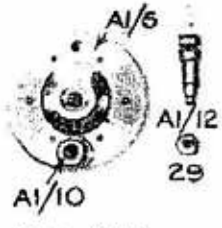
L.F.	31	Rear stand ... ..	10		9
"	38	Fixing bolts (each) ... ..			3
"	19	Nut for same (each) ... ..			4
"	22	Front stand ... ..	4		6
"	32	Fixing bolts (each) ... ..			3
H.F.F.	63	Nut for above ... ..			2
S.T.D.	11	Washer for above ... ..			1
H.M.	15	Front stand fixing wing screw (see also mud-guard) ... ..	1		8

### REAR WHEEL AND BRAKE PARTS.

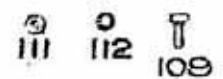
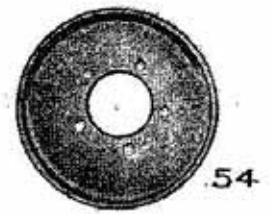
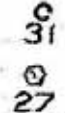
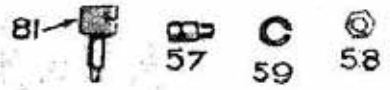
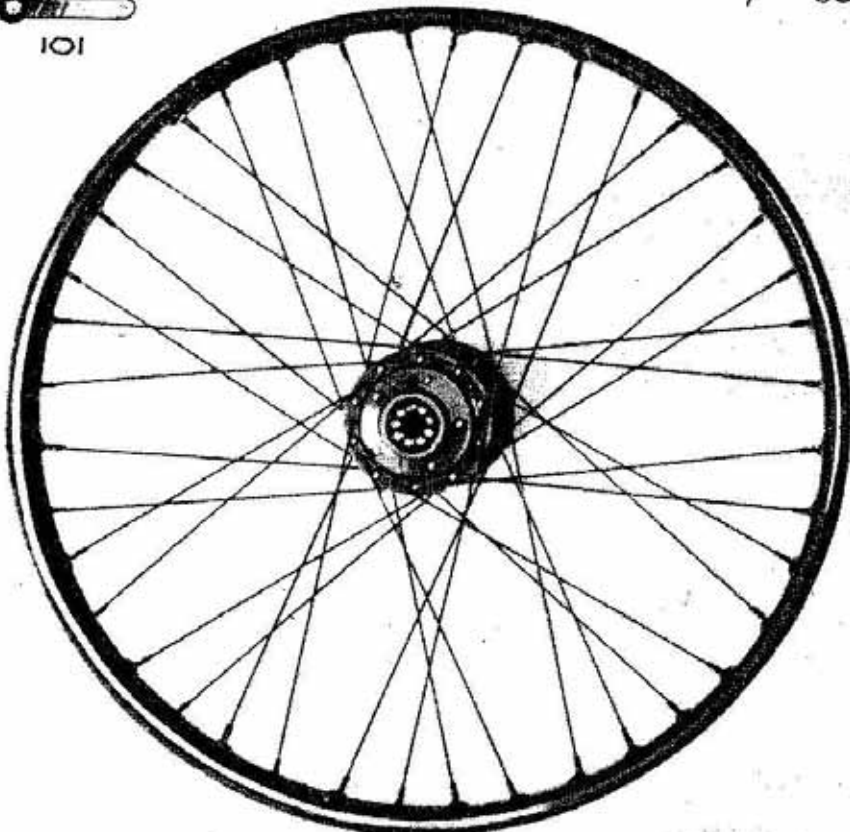
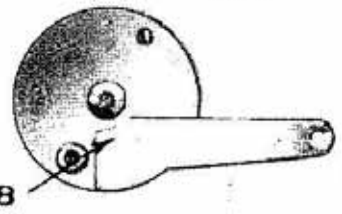
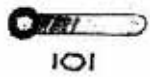
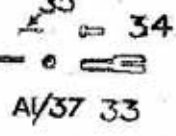
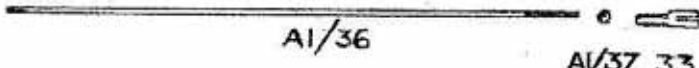
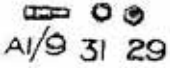
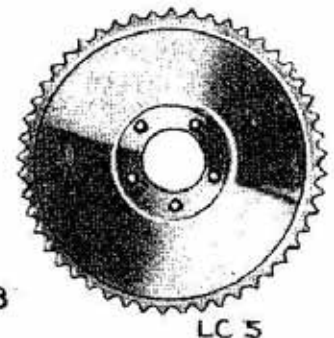
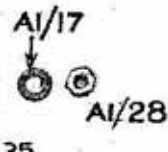
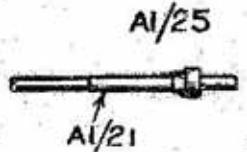
L.F.	63	Rear wheel complete with tyre ... ..	6	11	6
"	66	Rear wheel complete less tyre ... ..	4	7	9
L.F.	110	Rear wheel, less all fittings ... ..	1	13	6
L.C.	5	Rear wheel chain sprocket ... ..		8	0
"	6	Fixing screws for same (each) ... ..			2
S.T.D.	11	Washer for same (each) ... ..			1
"	54	Rear wheel brake drum ... ..		4	9
"	109	Fixing bolts (each) ... ..			3
"	110	Nut for same (each) ... ..			3
L.B.	20	Rear wheel brake cover plate with shoes, etc ...	1	6	7
"		Cover plate only ... ..		8	0
"	56/60/	Brake shoes, (per pair), with linings and con-			
"	61/74	traction spring ... ..	1	1	3
"	60/61	Ferodo linings only, with rivets (per set) ...		6	0
"	74	Spring for brake shoes ... ..		1	9
"	57	Brake shoe fulcrum stud ... ..			10
"	58	Nut for same ... ..			4
"	81	Brake shoe expander ... ..		1	7
"	101	Brake shoe expander lever ... ..			9
"	27	Nut for above ... ..			3
"	31	Spring washer ... ..			2
L.B.	3	Rear brake rod ... ..		2	5
S.T.D.	4	Nut for same (each) ... ..			2
"	36	Split pin for front end ... ..			1
L.B.	12	Brake rod toggle or cross head ... ..			8
S.T.D.	4	Nut for same ... ..			2
"	11	Washer ... ..			1



LC 6    STD. II



LF 52

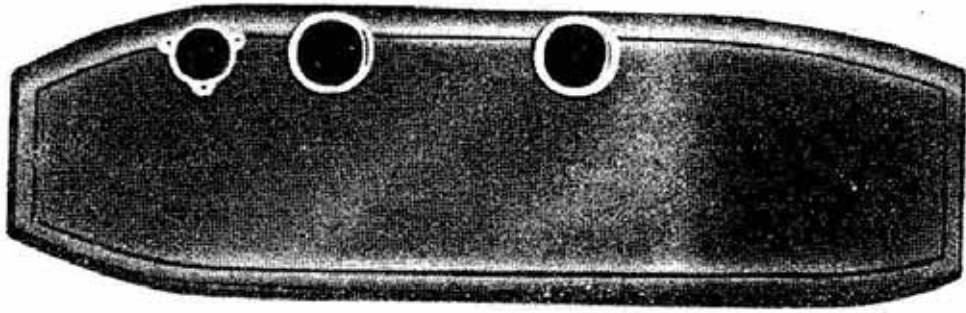


			£	s.	d.
L.B.	1	Rear brake pedal ... ..		4	9
"	15	Rear brake pedal return spring ... ..			4
"	4	Rear brake pedal fulcrum stud ... ..		2	0
S.T.D.	3	Nut for same ... ..			3
"	10	Washer ... ..			1
L.B.	5	Long bolt for fixing fulcrum stud ... ..			6
S.T.D.	3	Nut for same ... ..			3
L.B.	6	Distance tube for same ... ..			4
"	103	Rear wheel spindle ... ..	3	9	
"	25	Rear wheel spindle fixed cone ... ..	1	6	
"	22	Rear wheel spindle adjusting cone ... ..	1	8	
"	23	Dust cap for above ... ..			4
"	107	Spindle nuts (each) ... ..			6
"	113	Spindle washer, plain (sprocket side) ... ..			3
"	17	Spindle washer, domed ... ..			3
L.B.	14	Bolt for anchoring brake cover plate ... ..			7
S.T.D.	4	Nut for same ... ..			2
"	39	Set of rear wheel balls (per set) ... ..	2	0	
"	38	Rear hub lubricator ... ..			6

### FRONT WHEEL AND BRAKE PARTS.

L.F.	62	Front wheel complete with tyre ... ..	4	16	0
"	52	Front wheel complete less tyre ... ..	2	12	3
"	111	Front wheel, less all fittings ... ..	1	6	9
A1/6A		Front brake cover plate with shoes, etc. ... ..		16	3
A1/7/13/14		Shoes only, (per pair) with linings and con-			
/15		traction spring ... ..	9	11	
A1/14/15		Ferodo linings only (with rivets) (per set) ... ..	4	2	
A1/13		Spring for contracting shoes ... ..	1	3	
A1/12/20		Fulcrum stud for shoes ... ..			6
		Nut for same ... ..			3
L.B.	21	Washer ... ..			2
A1/9		Front shoe expander ... ..	1	6	
A1/11		Front shoe expander lever ... ..			6
		Nut for same ... ..			3
		Washer ... ..			1
A1/18		Anchoring link for cover plate ... ..			6
A1/26A		Bolt for same (cover end) ... ..			4
L.B.	22	Spigot nut for same ... ..			2
A1/26		Shouldered bolt for anchor link (fork end of			
		same) ... ..			4
A1/27		Nut for above ... ..			2
A1/31		Washer ... ..			1
A1/36		Front brake rod only ... ..	1	2	
A1/33		Yoke end ... ..	1	0	
A1/37		Yoke end locking nut ... ..			2
A1/34		Yoke end pin ... ..			4
A1/35		Split pin for same (per dozen) ... ..			6
L.B.	13	Reducing nipple for top end of rod ... ..			6
"	23	Front brake cable (inner) with nipples ... ..			9
"	24	Front brake cable (outer) with thimbles ... ..	1	7	
"	25	Front brake cable spring box ... ..	1	0	
"	26	Front brake spring for spring box ... ..			3





L.T.1



L.F. 56



H.T.13



H.T.12



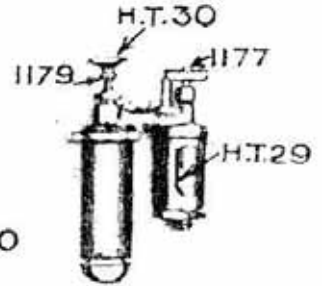
L.T. 4



H.T.9



H.T.10



H.T.25



H.T.16



H.T.15



L.G.L.6



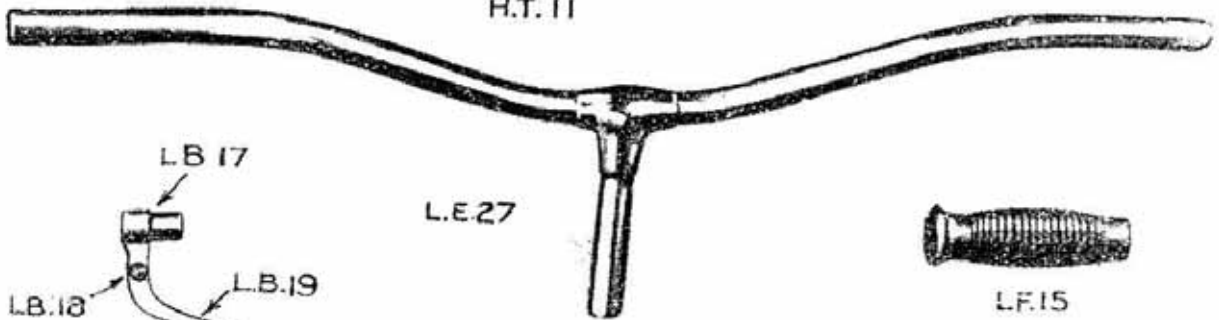
H.T.17



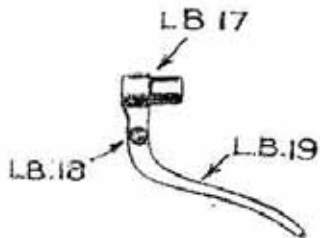
STD.15



H.T.11



L.E.27



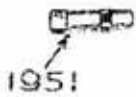
LB.17

LB.18

LB.19



L.F.15



1951



1950



1952



J.F.84/S



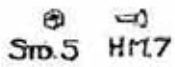
J.F.86/S



L.E.30



L.E.31



Std.5

HM7



L.E.1



1959



L.E.2

			£	s.	d.
	27	Front brake cable stop and lock nut ... ..			7
L.F.	119	Front brake handlebar lever (see handlebars) ...		7	6
A1/21		Front hub spindle ... ..		2	0
A1/25		Front hub spindle fixed cone ... ..		1	6
A1 / 22 / 23		(Front hub spindle adjusting cone ... ..)		2	0
/24		(Dust cap for above and washer ... ..)			
A1/28		Spindle nuts (each) ... ..			5
A1/17		Spindle washer (domed) ... ..			3
A1/30		Spindle washer (plain) ... ..			2
A1/39		Set of front wheel balls ... ..		2	0
A1/38		Front hub lubricator ... ..			6

### CHAIN GUARDS AND CHAINS.

L.C.	3	Rear chain guard ... ..		7	6
L.F.	37	Bolt for same (rear end) ... ..			3
S.T.D.	4	Nut for above ... ..			2
L.F.	61	Bolt for securing front end (see engine plate)			5
L.C.	1	Front chain guard ... ..		18	6
L.M.D.	14	Magneto chain case ... ..		10	9
L.E.	14	Long bolt for securing same ... ..			9
S.T.D.	3	Nut for above (each) ... ..			3
L.M.D.	10	Distance tube ... ..			5
L.C.	13	Rear chain, $\frac{1}{2}$ x $\frac{1}{2}$ (120 pitches) ... ..	1	2	0
"	19	Connecting link only (per dozen) ... ..		5	6
"	20	Spring clip only for above ... ..			2
"	21	Cranked link (per dozen) ... ..		7	9
"	14	Front chain, $\frac{1}{2}$ x $\frac{1}{4}$ (64 pitches) ... ..		11	10
"	22	Connecting link only (per dozen) ... ..		5	6
"	23	Spring clip for above only ... ..			2
"	24	Cranked link (per dozen) ... ..		7	9
L.M.D.	13	Magneto chain $\frac{1}{2}$ x $\frac{1}{8}$ (57 pitches) ... ..		3	9
L.C.	25	Chain rivet extractor ... ..		4	0

### FOOTREST AND PARTS.

J.F.R.	9	Footrest rubber pads assembled ... ..		3	9
SB.	228	Rubber pad only ... ..		1	3
L.F.R.	3	Footrest rod ... ..			9
S.T.D.	1	End nuts for same ... ..			5
L.F.R.	8	Left side footrest hanger ... ..		5	3
"	9	Right side footrest hanger ... ..		5	6
"	1	Distance tube (between cradle plates) ... ..			6
SB.	157	Spigot washer for rubber pad spindle ... ..			3
S.T.D.	3	End nut for same ... ..			3
L.F.R.	5	Distance tube left side (for front chain guard)			6

### HANDLEBAR.

L.F.	114	Handlebar with rubber grips ... ..		17	0
"	27	Handlebar, less grips ... ..		13	9
"	119	Inverted lever (left or right) complete ... ..		7	6
"	120	Lever portion only ... ..		3	9

			£	s.	d.
	121	Fulerum screw for same ... ..			4
	122	Nut for above ... ..			2
S.T.D.	20	Screw for securing lever body to handlebar ...			2

**SADDLE.**

L.F.	60	Saddle complete	} Saddle pin type ... ..	1	3	6
	42	Clip bolt only				
S.T.D.	4	Nut for above				
L.F.	60A	Saddle spring only	} Non saddle pin type	1	1	0
		Saddle top with springs (Non saddle pin type)				
H.F.	134	Saddle nose bush ... ..				9
	135	Saddle nose bush bolt ... ..				6
S.T.D.	4	Nut for above ... ..				2
L.F.	123	Saddle spring long anchoring bolt ... ..				9
S.T.D.	4	Nuts for same (each) ... ..				2
L.F.	124	Distance tubes for same (each) ... ..				5

**MAGNETO AND PARTS.**

L.M.D.	12	Complete magneto ... ..	4	10	0
	41B.	Contact breaker only complete ... ..		15	0
	4152/4122	Contact screws only (each) ... ..		5	0
	7P.	High tension pick up ... ..		3	0
	1052	Carbon brush only (per pair) ... ..			7
		Spring for same ... ..			1
	23	Sparking plug cable with terminal end ...		1	0
	11	Magneto chain sprocket ... ..		3	0
	175	Bolt for same ... ..			4
	803	Sprocket for camshaft end (see also engine ...		5	0
	1599	Bolt for fixing same ... ..			8
L.E.	3	Magneto platform or base ... ..		6	9
L.M.D.	7	Bolt for fixing magneto to same ... ..			2
S.T.D.	5	Nut for above ... ..			2
L.M.D.	9	Magneto chain adjuster stud ... ..			5
	8	Special double headed nut for same ... ..			9
	25	Magneto advance and retard cable (inner) ...			9
	26	Magneto advance and retard cable (outer) ...		2	0
	27	Handlebar lever for above complete ... ..		6	9

**CARBURETTOR B. & B.**

L.E.	19	Complete Carburettor (Special type) ... ..	2	17	0
B. & B.	1	Float chamber body only ... ..		10	3
	2	Float chamber cap and tickler ... ..		7	8
	5/6	Float chamber needle valve ... ..		1	2
	9	Float ... ..		2	6
	11	Main jet complete ... ..		1	1
	21/22A	Fibre washer for same ... ..			1
	3	Jet taper needle ... ..		1	9
	4	Needle holder and screw ... ..			7
	30	Spraying chamber ... ..		8	6
	30/36	Spraying chamber cap with bushes ... ..		2	5
B. & B.	49	Spraying chamber cap lock ring ... ..		1	3

					£	s.	d.
..	50	Clip and bolt for inlet port	...	...		2	9
..	50A	Bolt only	...	...			4
..	48	Gauze strainer for air port	...	...			5
..	49	Cap for same	...	...		1	4
..	38	Trottle valve	...	...		4	8
..	38	Air valve	...	...		2	2
..	41	Valve springs (pair)	...	...		1	2
L.E.	59	Control levers complete	...	...		10	11
C.	5	Air lever only	...	...		3	0
..	4	Throttle lever only	...	...		3	0
..	22/23	Control cables (inner and outer) complete	...	...		5	9

### EQUIPMENT.

L.E.Q.	7	Watford Speedometer complete with all fittings			4	0	0
..	8	Watford Speedometer shaft complete (inner and outer)	...	...	1	0	0
..	9	Watford Speedometer shaft (inner only)	...	...	10		0
..	10	Watford Speedometer drive box complete	...	...	1	10	0
..	11	Watford Speedometer crown wheel (with clips)	...	...		8	0
..	12	Watford Speedometer wheel clip only (each)	...	...		1	6
..	13	Acetylene lamp set complete, comprising Lucas 341 Head lamp, 344 Tail lamp, generators, all brackets, tubing, etc.	...	...	3	0	6
..	14	Head lamp only	...	...	1	5	0
..	15	Tail lamp only	...	...		3	6
..	16	Head lamp burner	...	...		2	1
..	17	Tail lamp burner	...	...			6
..	18	Generator	...	...		13	6
..	19	Generator and headlamp combined bracket	...	...		10	6
..	20	Generator rubber tubing	...	...		1	2
..	21	Electric head lamp	...	...	1	15	0
..	22	Double filament bulb only	...	...		3	6
..	23	Tail lamp bulb	...	...		1	8
..	24	Head lamp cable (per foot)	...	...			2
..	25	Tail lamp cable (per foot)	...	...			2
..	26	Cable head lamp switch to battery (per foot)	...	...			2
..	27	Accumulator in case	...	...	2	15	0
..	28	Case only	...	...	1	0	0
..	29	Accumulator only	...	...	1	15	0
..	30	Electric head lamp glass and rim	...	...		7	6
..	31	Electric head lamp reflector	...	...		4	9
..	32	Tail lamp	...	...		10	6
..	33	Cowey Speedometer complete with all fittings	...	...	4	0	0
..	34	Cowey Speedometer gear box	...	...		15	0
..	35	Cowey Speedometer driving wheel	...	...		3	0
..	36	Cowey Speedometer driving wheel screw and clamps	...	...		2	0
..	37	Cowey Speedometer driving wheel complete	...	...		5	0
..	38	Cowey Speedometer Flexible drive complete	...	...		12	6
..	39	Cowey Speedometer sheath and coil (per foot)	...	...		1	6
..	40	Cowey Speedometer cable (per foot)	...	...		1	4

