VICTORIES

CHAMPIONSHIP

of the World
of France
of Italy
of Belgium
of Switzerland
of Holland
of Luxemburg
Olympic Games

THE TOUR

of France
of Italy
of Britain
of Belgium
of Switzerland
of Holland
of Luxemburg
of Portugal
of Spain
of Mexico
of Morocco
of Tunesia
of Six Provinces
Grand Prix des Nations
World Championship of Cyclocross
Bordeaux-Paris
Paris-Nice
Paris-Saint-Etienne
Paris-Brest-Paris
Rome-Naples-Rome
Milan-San Remo

THE CHAMPIONS who won Them

FAUSTO COPPI
FERDI KUBLER
JEAN ROBIC
VAN STEENBERGEN
F. MAGNI
STAN OCKERS
HASSENFORDER
SCHAER
RONDEAUX
MALLÉJAC
ANQUETIL
DUFRAISSE
FORESTIER
ANASTASI
GEMINIANI
MARINELLI
DARRIGADE
MIRANDO
LAUREDI
L. TEISSEIRE
M. DIOT
IMPANIS

WHEN BETTER GEARS ARE MADE

SIMPLEX

WILL MAKE THEM

FREE SERVICING.

THERE IS A SIMPLEX SERVICE DEPOT IN EVERY PART OF EUROPE...

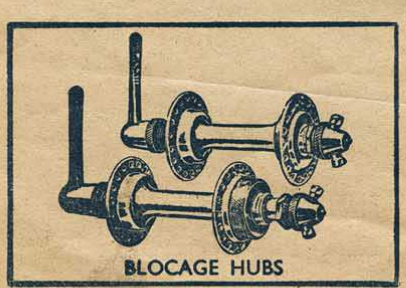
In Great-Britain, every good dealer will service your Simplex gear. In addition, we operate SIMPLEX Central Service Depots at London, Manchester and Birmingham, where Simplex equipment requiring servicing or repair may be sent to one or other of these depots, with an indication of the adjustment required. With the exception of a standard charge of 2/-to cover packing and return postage, gears will be serviced ABSOLUTELY FREE OF CHARGE. Only replacement parts if fitted, being charged in accordance with our Official Spares Price List.

HEAD OFFICE

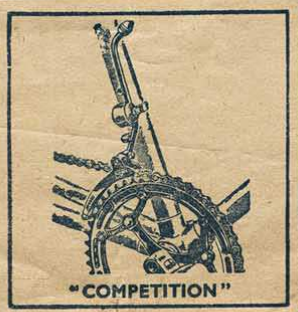
LE DERAILLEUR SIMPLEX LIMITED

9 DRAPERS GARDENS - THROGMORTON AVENUE

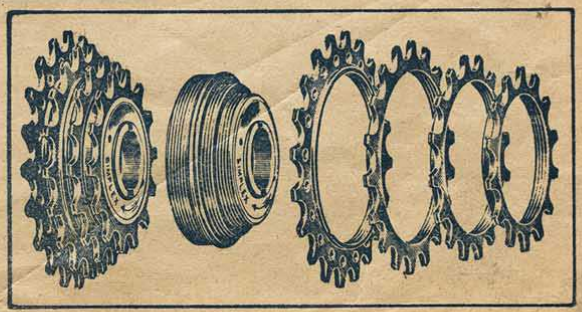
LONDON. EC2 - ENGLAND

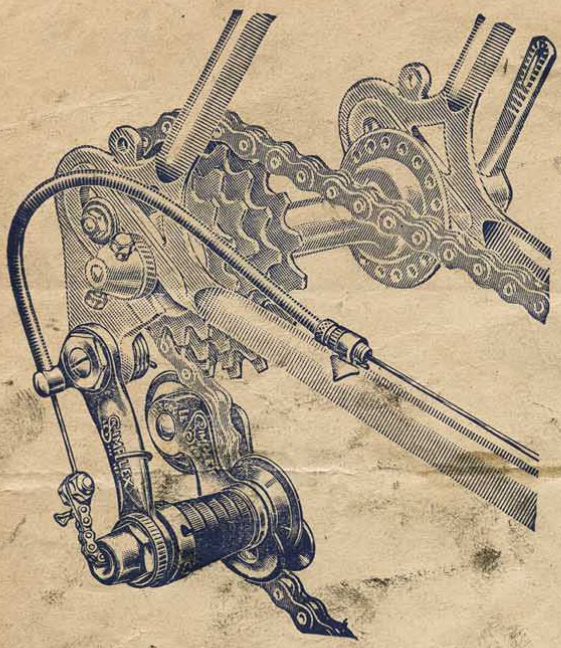


BLOCAGE HUBS



"COMPETITION"





REGISTERED TRADE MARK — SIMPLEX — BRITISH PATENTS

Nos 579876, B 683564 — Nos 622249, 618348, 674556

MODEL
"TOUR DE FRANCE"

Nicknamed the "Gear with guts", this is undoubtedly the most widely used of all derailleur gears and has long been a favourite with the British clubman for racing, touring and all-round use. It can be securily fixed by a single screw to any normal Frame without alteration and is adjusted just as easily to give smooth gear changing and maximum efficiency. Chain "jumping" ou the higher ratios is prevented by the tension sprocket fitted to the Spring-loaded operating cage which is specially designed to ensure normal chain envelopment on all cogs.

GEAR RANGE. An overall range of 16 Teeth when combined with a Front Derailleur, the Double Chainwheel not exceeding 10 Teeth variation. Maximum Freewheel range, any combination from 13 to 24 Teeth.

TWO INDEPENDENT TENSION PIVOTS (Patented). SIMPLEX Derailleurs are the ONLY gears incorporating BOTH Spring pivoted Double Roller Cage, AND, Spring Loaded Tension Arm. The advantages of this system include the use of wide ratio gearing without chain "Jump", the absence of chain "flapping" over rough roads and the ability to change gear smoothly over a wide Tooth variation from one sprocket to the next. These advantages ARE NOT TO BE EXPECTED in gears without these special features.

EASY TO FIT. The "Tour de France" is delivered with Fork end bracket Ref. 829 by which means it is securely fixed by a single screw to any normal Frame without alteration. It can be immediatly adapted for Frames built with Simplex Rear Fork ends, (as shown on illustration).

EASY WHEEL REMOVAL. The "Tour de France" permits rapid wheel removal and replacement. The chain is retained on the lower roller, where it can be rapidly re-engaged when the wheel is replaced.

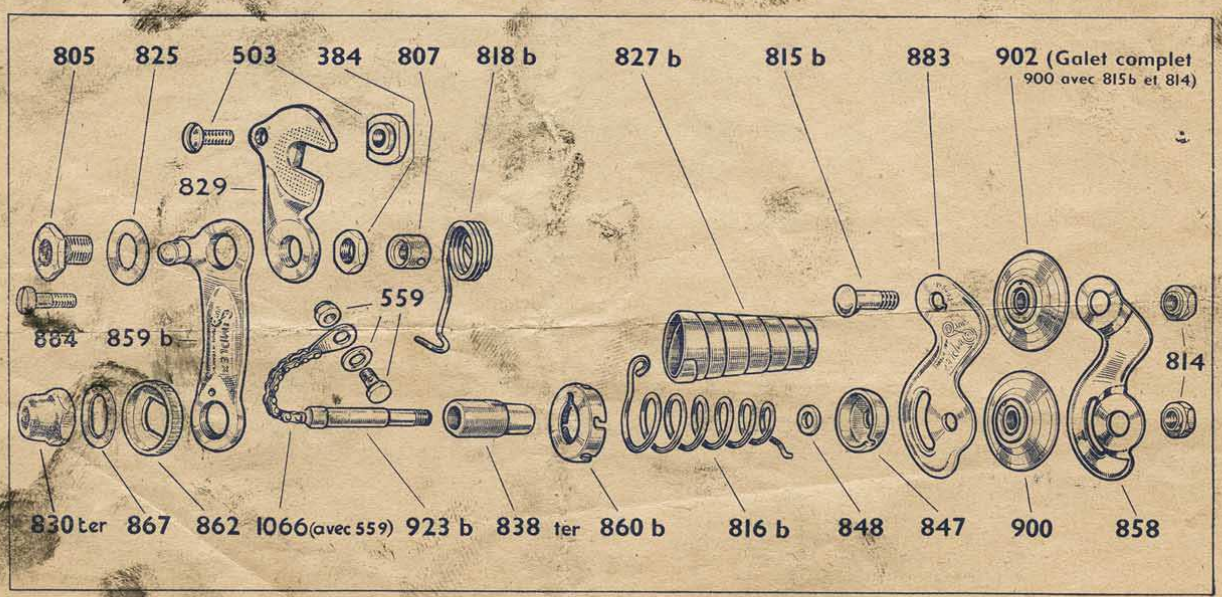
TRANSMISSION. Cable and "Clip-on" Lever for 1 1/8 tube are supplied with the gear.

"GET-YOU-HOME" PATENTED GEAR SELECTOR. This Simplex refinement is suitable for the "Tour de France" model, and can be purchased separately.

FITTING INSTRUCTIONS. Full instructions in English for Fitting and maintenance are packed with every gear. A special paragraph is devoted to fault finding in "Question and Answer" form, rendering fitting and adjustment a simple operation.

TYPES AVAILABLE. The "Tour de France" gear is available in 3 and 4 speed for 1/8" chain, and, 4 and 5 speed for 3/32" chain.

WEIGHT COMPLETE : 13 oz

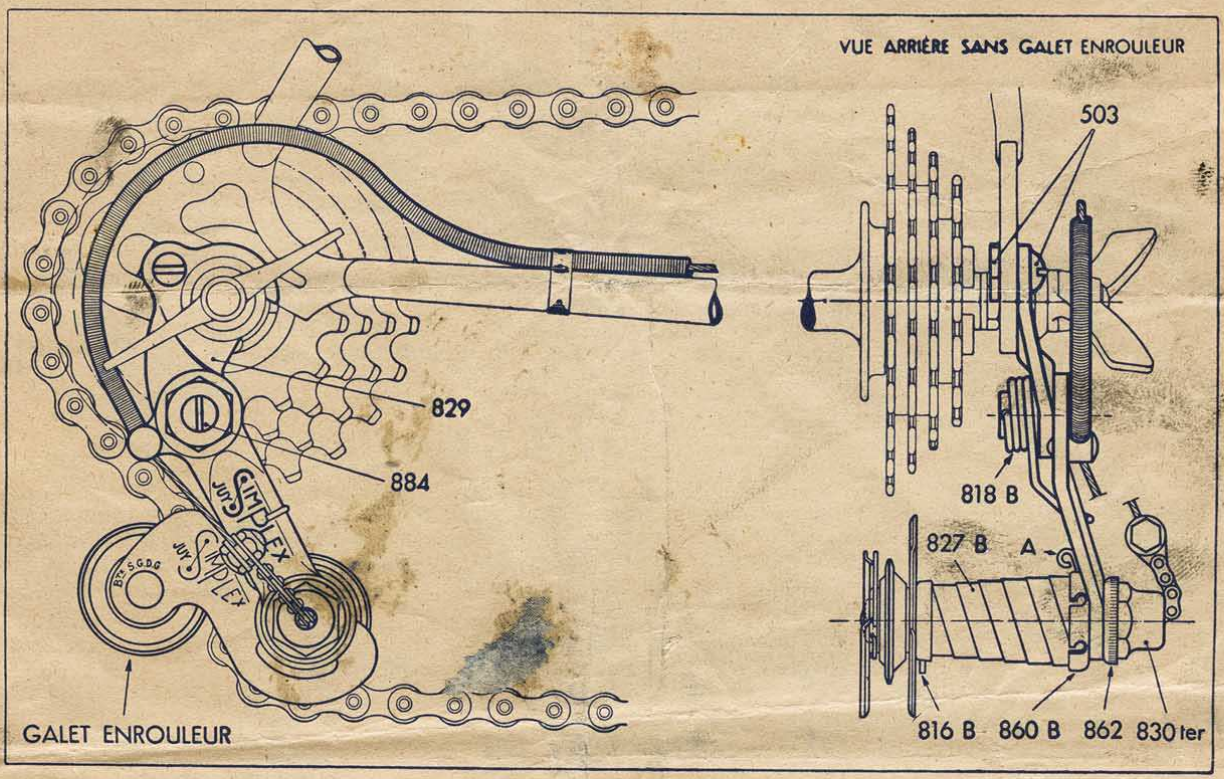


When ordering spare parts, give reference numbers and state if required for 3 or 4 speed 1/8" or for 4 or 5 speed 3/32".

Parts 923 b, 1066, 559, 830 b, constitute the shaft complete.

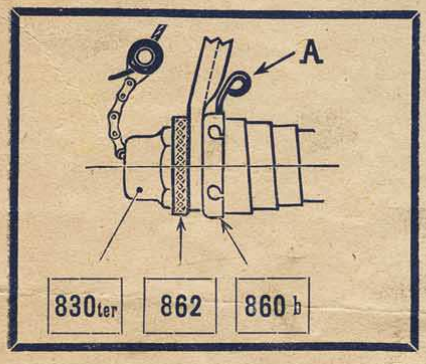
"Tour de France" Derailleur Gear

FITTING INSTRUCTIONS



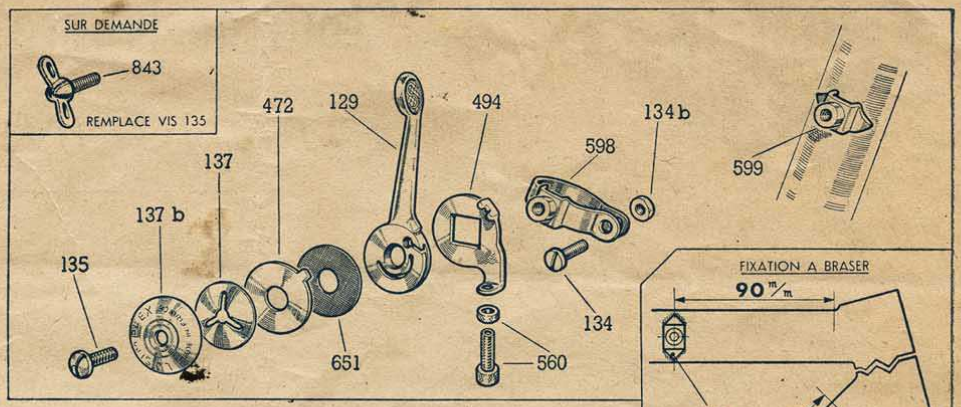
Remove the rear wheel and fit the multiple freewheel selected, using a spacing washer on the hub if the chain fails to clear the spokes when the low gear sprocket is engaged. Next ensure sufficient clearance for the smallest sprocket, adding additional washers or locknuts to the hub spindle if the chain fouls the seatstay. This will necessitate dishing the rear wheel BUT THESE ADJUSTMENTS WILL NOT BE NECESSARY IF A HUB SPECIALLY DESIGNED FOR A DERAILLEUR GEAR IS USED. Note that correct chain line is on the centre cog of three and five speed freewheels and midway between the second and third cogs on a four speed freewheel.

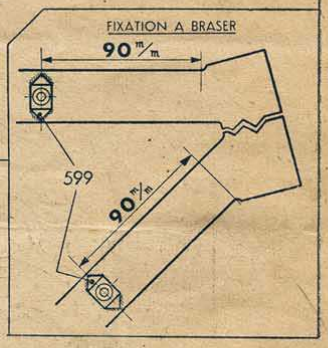
Place the fork end bracket No. 829 on the right-hand rear fork end. Secure with the screw and nut 503, the nut being fitted inside the fork end with the shoulder engaging the slot. Replace the rear wheel.



Loosen the domed nut 830 ter. and adjust the gear by turning the knurled ring 862 to the right or left so that the rollers are directly in line with the largest cog on the freewheel. Tighten the domed nut and check carefully for errors in alignment, making sure that the cage and rollers are also PARALLEL with the freewheel sprockets. The mechanism must be set correctly when assembled so that it does not appear bent or twisted.

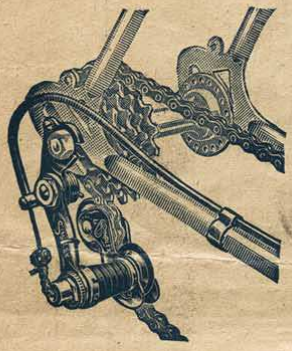
Fit the chain on the largest cog of the freewheel, allowing only sufficient length for it to mount and dismount this sprocket without forcing the mechanism. It is important to rivet up the join. Spring connecting links must not be used. Next regulate the chain tension by loosening the screw 884, thus permitting the tension spring 818 b to be turned to the required position. Lock by means of Screw 884. The traverse spring 816 b should now be adjusted so that the top roller rests only lightly on the chain, the pressure exerted by this roller being varied by moving the trigger end of the spring (A) into the various notches in the slotted spring cup 860 b. Excess pressure will force the top roller too far forward and will prevent smooth gear changing. Fit the control wire by first passing the free end through the cable stop mounted on the carrying arm and then through the drawbolt at the end of the control chain so that it can be clamped between the chain end and the washer provided. Do not tighten the drawbolt nut at this stage. Next loop the cable along the chainstay and up the down tube, as shown in the illustration, avoiding sharp bends. Fit the control lever and secure the cable with adhesive tape or clips. Screw in the cable adjuster at the lever end of the cable so that it can be used if the wire stretches at a later date, and push the lever forward as far as it will go. Finally, pull the wire through the drawbolt, taking up all the slack without moving the mechanism, and secure firmly by tightening the drawbolt nut. The gear should now operate smoothly on all sprockets. If any difficulty is experienced in engaging either top or bottom gears the adjustment of the knurled ring 862 is incorrect and it should be readjusted as previously described. Turn clockwise to engage bottom gear more easily - anti-clockwise to assist changing into top.





MAINTENANCE.

It is advisable to lubricate inside the spiral spring 816 B, also control chain passage, roller cones and control cable. Lubricate control lever between the friction washers.



FAULT FINDING.

First make sure your gear mechanism is suitable for the freewheel block you propose using—a three speed system will dot cover the width of a four speed freewheel ; a 3/32" system is of no use with 1/8" sprockets, etc. The chain cage side plate of a Simplex gear is stamped according to type. For example, "4 Vit. chaîne **2,38**" indicates **4 speed 3/32"** chain, "4 Vit. Chain **3**" indicates 4 Speed×**1/8**" chain.

If your gear fails to operate satisfactorily, see that the system is not bent or twisted and proceed as follows :

Chain fails to engage top gear easily.

Chain attempts to climb from bottom gear into the spokes.

Loosen the domed nut 830 ter turn the knurled ring 862 to the left to correct. Lock when correctly adjusted by tightening the domed nut.

Chain fails to engage bottom gear easily.

Chain tends to derail in top.

Loosen the domed nut 830 ter turn the knurled ring 862 to the right to correct. Lock when correctly adjusted by tightening the domed nut.

Chain derails at chainwheel.

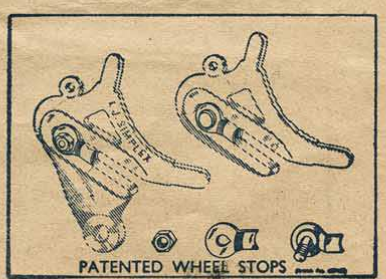
This may occur if the chain is too long or if the tension spring 818 b needs adjustment. (See fitting instructions). If the chain derails frequently on top or bottom gear, however, an error in chain line is usually indicated. No derailleur gear will operate smoothly unless the chainring is directly in line with the centre of the sprocket assembly (where a double chainwheel is used chain line is calculated from a point midway between the two chainwheels). If an error exists it must be corrected by re-positioning the freewheel on the hub, setting the chainwheel, or in extreme cases by changing the bracket axle.

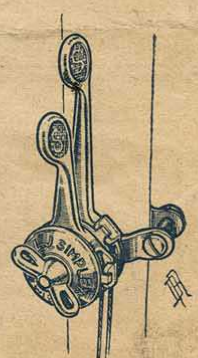
Chain « jumps » under pedalling pressure.

Providing the gear changes properly from one cog to another and the chain length and tension are approximately correct the gear is not at fault and the adjustment should not be meddled with. Chain «jumping» is usually more pronounced on the higher ratios and is due to the chain failing to mesh with the cogs. If the «jump» is regular check the chain for tight links, paying particular attention to the rivetted joint. Slight or occasional chain « jumping » when hill climbing may occur with a new transmission but will disappear after a few miles as the chain beds down. Well worn cogs rarely operate satisfactorily with a new chain or with a worn chain previously used with **other** cogs and similarly, a well worn chain will tend to jump if used with new cogs. It is better to start with a completely new transmission.

Correct Fitting

Wrong Fitting





"DOUBLE CONTROL LEVER"