# CATALOGUE OF ACCESSORIES



Distributed throughout Great Britain by the Sole Concessionaire

ACCAL

ANGLO-CONTINENTAL CYCLES & ACCESSORIES Ltd.
Cycling Centre - HARROGATE - England

CATALOGUE OF

## **ACCESSORIES 1963**

DISTRIBUTED BY

# Anglo-Continental



#### CYCLING CENTRE . HARROGATE

# HARROGATE

Telegraphic Address: RONKIT, HARROGATE.

Telephones: Harrogate 4996 and 4985.

The Catalogue should be used in conjunction with our current price lists as follows:—

PRICE LIST AC/EXP - For Overseas buyers.

PRICE LIST AC/FAC - For British wholesalers.

PRICE LIST AC/OE - For British cycle manufacturers.

# Guarantee -

All goods in this Catalogue are subject to maker's guarantees as regards faulty workmanship and materials. This guarantee, however, does not cover any damage or defect due to wrong assembly, bad fitting, accident or normal wear. The manufacturers or their agents will not be answerable to any claim for labour or any other expenditure incurred in remedying any defect, or to any resulting liability or loss arising from any such defect.

Articles subject to claim should be returned, carriage paid, with full details.

This Catalogue cancels all previous issues. We reserve the right to amend specifications or withdraw articles without notice.

The contents of this Catalogue are Copyright and must not be reproduced without permission.

# SPECIALITIES T.A.



The World's Finest Cycle Transmission

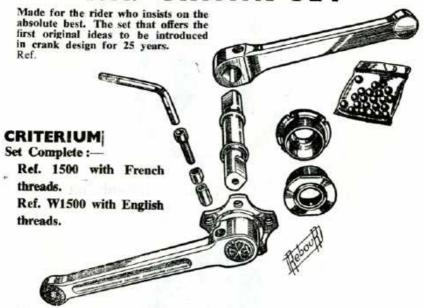




Famous for

QUALITY METAL
PRECISION TOOLING
IRREPROACHABLE FINISH
INTERCHANGEABILITY

# CRITERIUM T.A. CRANK SET



The TA crank set answers ALL your problems with

NO -

Hammered Cotters
Rusting parts
Extractor tools required
Loose axle end bolts

. . and these advantages

PLUS

Choice of 9 crank lengths
Adjustable chain line
Pedal axle stop washer
Blanked off pedal axle hole
Super polished chrome bearing surfaces
Patented solid drive on right-angled axle
Immediate and simple detachability
Ultra light weight (cranks 12½ oz. pair)
(Set as illustrated 27½ oz.)

Made in light alloy these cranks, with the aid of a choice of 3 axle lengths and the patented T.A. method of attachment which permits a lateral adjustment of over 4 mm. on the patented right-angled axle, will give you accurate chainline with either single, double or triple chainwheels.

Axle and cups are in nickel chrome steel, coated and polished, ball bearings are finest high precision.

# T.A.

# CRITERIUM CRANK SET



#### CRANK LENGTHS AVAILABLE

mms.	ins.	
160	6 5/32	
162·5	6 9/32	
165	6 1	
167·5	6 9/16	
170	6 11/16	
172·5	6 13/16	
175	7	
177·5	7 3/32	



Left Hand Crank Ref. 620 (French threads 14/125)

Ref. W620 (English threads 9/16" - 20F) Right Hand Crank

Ref. 510
(French threads 14/125)

Ref. W510
(English threads

9/16" - 20F)

Right Hand crank is designed to take any standard 5-pin chainwheel, single. double or triple.

Lockring	Adjusting Cup	Axle suitable for			Fixed Cup
French threads Ref. 730 English threads Ref. W730	French threads Ref. 720 English threads Ref. W720	Single chain- wheel Ref. P315	Double and Triple racing chain- wheels Ref. 345	Triple Cyclo-tourist chainwheel Ref. 375	French threads Ref. 710 English threads Ref. W716





Ref. 135

A B C 2 Securing Bolts

2 Collars

2 Threaded bushes

Complete set of 6 pieces



Set of 2 Pedal Stop washers Ref. 137



Set of 22 High Precision 6,35 Ball Bearings Ref. 740

# Type PROFESSIONNEL Chainwheels

ROAD RACING CHAINWHEELS—Double or Triple assembled on adapter Use Chain 1 x 3/32.

Range: — Minimum 44 Teeth. Maximum 68 Teeth. (Above 68 T. to Special Order)



Complete Adaptor Sets 3-arm Double. Ref. 2173 3-arm Triple. Ref. 3173

> Complete Adaptor Sets 5-pin Double. Ref. 2175 5-pin Triple. Ref. 3175

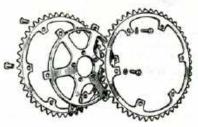




Road Adaptor Ref. 173



Road Adaptor Ref. 175



Inner Chainring Ref. 106

Outer Chainring Ref. 104

Note: Always specify outer or inner chaining with Ref. No.

Triple set has 1 Ref. 104 outer and 2 Ref. 106 inner chainrings assembled with Ref. 84 fixing bolts.



Crank Fixing Bolts (Set of 5). Ref. 25. (Supplied free with 175, 2175 and 3175).



Assembly Bolis, etc., for Doubles (Set of 6). Ref. 62. (New pattern—use 136 Allen key).



Assembly Bolts, etc., for Triples (Set of 6). Ref. 84

# PROFESSIONNEL ADAPTOR SETS

offer the finest combination for racing.

Immediate detachability — rings pass easily over toeclip and strap. Incomparable rigidity. — The continuous double flanged rim ensures that the rings always remain true.



Inner Chainring Ref. 106



Outer Chainring Ref. 164

# Type CRITERIUM Chainwheels

ROAD CHAINWHEELS - Double or Triple. Use Chain ½ x 3/32

Range: - Minimum 44 Teeth.

Maximum 68 Teeth.

(Above 68 Teeth to Special Order)



Criterium complete 3-arm Double. Ref. 2203 3-arm Triple. Ref. 3203



Criterium complete 5-pin Double. Ref. 2205 5-pin Triple Ref. 3205



Crank Fixing Bolts (Set of 5). Ref. 25. (Supplied free with 2205 and 3205).



Assembly Bolts, etc., for Doubles. (Set of 6). Ref. 64.



Assembly Bolts, etc., for Triples (Set of 6). Ref. 85.



Outer Chainwheel 3-arm. Ref. CR203



Inner Chainring To fit CR203 or CR205. Ref. 204



Outer Chainwheel 5-pin. Ref. CR205

CRITERIUM doubles and triples offer the same range as the PROFESSIONNEL without the use of the adaptor.



# Type RANDONNEUR chainwheels

Road Chainwheels — Double or Triple. Use Chain ½ x 3/32

Range: — Minimum 36 Teeth

Maximum 68 Teeth



Randonneur complete 3-arm Double Ref. 2213 3-arm Triple Ref. 3213



Randonneur complete 5-pin Double Ref. 2215 5-pin Triple Ref. 3215

(**D** 

Crank Fixing Bolts (Set of 5). Ref. 25. (Supplied free with 2215 and 3215).

(=00=0

Assembly Bolts, etc., for doubles, (Set of 6). Ref. 64.

Assembly Bolts, etc., for triples. (Set of 6). Ref. 85.



Outer chainwheel 3-arm Ref. RA203



Inner chainring to fit RA203 or RA205 Ref. 206



Outer chainwheel 5-pin Ref. RA205

The RANDONNEUR range is made in the same famous TA forged duralumin as the other TA chainwheels—material respected throughout the world for it's lightness and longevity.

# Type CYCLOTOURISTE Chainwheels

Road Chainwheels - Double or Triple 5-pin only Use Chain ½ x 3/32.

Range: — Minimum 26 Teeth Maximum 68 Teeth



Cyclotouriste complete. 5-pin Double Ref. 2235



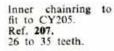
Cyclotouriste complete. 5-pin Triple Ref. 3235



Crank Fixing Bolts (Set of 5). Ref. 25 (Supplied free with 2235 and 3235).



Assembly Bolts, etc., for doubles (Set of 6). Ref. 64





Assembly Bolts, etc., for triples (Set of 6). Ref. 87 Outer chainwheel 5-pin for 2235 (Double). Ref. CY205.





Outer chainwheel 5-pin for 3235 (Triple). Ref. TCY205. 36 teeth minimum. Intermediate chaining for TCY205 (Triple). Ref. 208. 26 to 50 teeth. Inner chainring for TCY205 (Triple). Ref. 207. 26 to 35 teeth.

Every TA chainwheel is surface plate tested before despatch. For doubles and triples we recommend  $\frac{1}{2} \times 3/32$  chains only to be used.

# Single TRACK chainwheels

3 or 5-pin



Chainwheel 3-arm using Bloc track chain. 1" x 3/16". Ref. P233. 20 to 34 teeth.



Chainwheel 3-arm using road chain ½ x ½" or 3/32".

Ref. P203.

44 to 68 teeth.



Chainwheel 5-pin using Bloc track chain. 1" x 3/16". Ref. P255. 20 to 34 teeth.



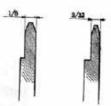
Chainwheel 5-pin using road chain ½ x ¼" or 3/32".

Ref. P205.

44 to 68 teeth.



Crank Fixing Bolts.
(Set of 5).
Ref. 25
(Supplied free with P255 and P205).

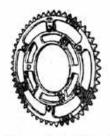


NOTE. — Specify type of chain to be used—½" x ½" or 3/32—when ordering chainwheels. References: 201: 203: 205: P203: P205: P209: P1753: P1755.

TA employ no professional riders—their products are used on merit alone. They have been successful in 10 post-war Tour de France events—World Championships for Road, Track and Pursuit, World's Hour Record, etc. Records unequalled by any other similar products.

# Single TRACK Chainwheels on ADAPTOR

3 or 5 pin



Complete Track Adaptor Set 3-arm using ½ x ½ or 3/32 chain. Ref. P1753. 44 to 68 teeth.



3-arm Single Track adaptor. Ref. P173.



Complete Track Adaptor Set 3-arm using 1" x 3/16" chain Ref. P1733. 20 to 34 teeth.



Complete Track Adaptor Set 5-pin using ½ x ½ or 3/32 chain Ref. P1755. 44 to 68 teeth.



5-pin Single Track adaptor. Ref. P175.



Complete Track Adaptor Set 5-pin using 1" x 3/16" chain Ref. 1735. 20 to 34 teeth.



Chainring for single adaptors P173 & P175. Ref. P209. 44 to 68 teeth. (Above 68 to special order).



Track adaptor assembly bolts, etc. (Set of 6). Ref. P75.



Crank Fixing Bolts. (Set of 5). Ref. 25. (Supplied free with P1755, P175 & P1735).



Chainring for single adaptors P173 and P175. Ref. P210. 20 to 34 teeth.

Single TRACK ADAPTOR SETS in addition to being used for Track sprinting and pursuiting are ideal for Road use when a quickly interchangeable single ring is required.

# Single ROAD chainwheels

For use with either 1 x 1 or 1 x 3/32 chains.

Range: - Minimum 5-pin 26 teeth.

Minimum 3-arm 36 teeth.

Maximum

68 teeth.

(Above 68 Teeth to Special Order)



Chainwheel 3-arm Ref. 203. 36 to 68 teeth.



Crank Fixing Bolts (Set of 5). Ref. 25. (Supplied free with 201, and 205).



Chainwheel 5-pin Ref. 205 36 to 68 teeth.



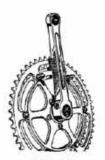
Chainwheel 5-pin. Ref. 201. 26 to 35 teeth.

NOTE.—Specify 1/2 x 1/8 or 1/2 x 3/32 when ordering single chainwheels.



Special Cyclo Cross Chainwheel. (For ½ x 3/32 chain). Ref. 3-arm 1203. Ref. 5-pin 1205.

This chainwheel incorporates two light dural chainguards rivetted to each side of the chainwheel thus preventing the chain from derailling when riding over bumpy ground. The flush rivets are so finished to give maximum clearance.



Chain Trap. The Pair. Ref. 24.

Two double or triple Road adaptor fixing bolts fitted as shown, one on each side of the crank. These are extended to catch a derailled chain and prevent it jamming behind the crank and at the same time permitting it to be replaced easily while riding.



# **BOTTLE CAGES**

are the finest ever produced.

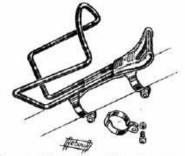
Look for these exclusive features:-

- \* Constructed in one piece heavy gauge steel wire.
- · No springs or expanders used.
- \* Solid brazed-on back plate.
- · Fits any full-size bottle.
- \* Two accurate-fitting non-slip fixing clips.
- \* Superb heavy chrome plate finish.



Clips for 2d3 Pair Ref. 13.

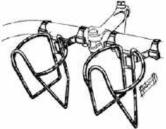
Handlebar Type. Ref. 213.



Down Tube Type. Ref. 215.

Clips for 215. Pair Ref. 15.

Two handlebar cages can be fitted alongside to equal a double handlebar cage as illustrated.



#### **BOTTLES AND HIP FLASKS**

The TA Bottle secured the coveted contract for the world's most important cycle race—the TOUR de FRANCE, chosen because of these features:—

- Made in special white polythene it will stand enormous pressure.
- It is light—it will take hot or cold liquids and is guaranteed against any odour.
- \* Fitted with a double seal cap ensuring a watertight fit.
- \* Cap is attached by a flexible moulded loop and has a thumb push lip for easy opening.



Standard Bottle. Cap for 200. Ref. 200 Ref. 20



Hip Flask. Large Ref. 300. Cork for 300 Ref. 30.



Hip Flask. Small Ref. 150. Cork for 150 Ref. 15.

Standard Bottle can be impressed with your own trade name or with your "extra-sportive" marque.

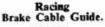
# T.A. ACCESSORIES

These are famous for their superb quality and improved design.



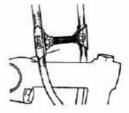
Tourist Brake Cable Guide and Identity Plaque. Ref. 32

Made in alloy this guide can be fitted to either expander bolt or stem clip bolt. Guides and rubber ring inserts are both slotted so that the brake cable can be fitted without cutting. Free movement is allowed to the cables without friction. This guide is ideal for engraving as an identity plaque.



Ref. 34.

Two neat clips joined by a spring giving full movement.



Here are the reasons why TA shoe plates are different and better.

Shoe Plates. Ref. 36.

- \* Extra light only } oz.
- in finest duralumin. Extra strong - perfectly
- machined in one piece. Most practical — carefully tapered into a deep slot.
- Easiest to fit location slot enables the plate to be held with a tack while the exact position is set.

#### RECOMMENDED TOOLS



Forked Screwdriver for threaded chainwheel assembly bolt bush.

Ref. V23.



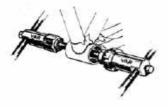
Spanner for six-sided chainwheel assembly bolts.

Ref. V24.



Allen Key for locking crank securing bolts. and new type Professionnel double assembly bolts.

Ref. 136.



Tools for threading and dressing the bracket Indispensable for correct fitting of shell. BB cups.

For French threads. Ref. 380. For English threads. Ref. W380.



The French are famous for Cycle Accessories and as a result of a highlydeveloped industry catering for the National Sport of Cycling, French specialities lead the world in design.

### AD-HOC PUMPS

These superb French racing pumps in finest dural were the first to use the widely copied plastic hand grip. The full range available is as follows:—



Integral

MUSETTE short 12" shoulder bag pump.

TOURISME 15" x ½" touring.

VENTOLUX 18" x ½" economy pump.

PROFESSIONEL 19" x ½" standard racing.

SPECIALE COURSE 19" x 13/16" narrow racing.

INTEGRAL 19" x 15/16" with special built-in racing adaptor, no connection fittings required.

and in plastic the VENTIC 15" x ½" silver finish.



#### **ANQUETIL Shoe Plates**

(Weight 2 ozs. pr.) Manufactured in forged duralumin consisting of 3 pieces rivetted with copper and a special extra long steel plate to protect the shoe sole. ROAD model (illustrated) has an extra long base plate, joining the heel and re-inforcing the sole without losing the necessary flexibility. The famous French rider, J. ANQUETIL, claims that this design assists in avoiding cramp during long races into the wind or in the rain. TRACK model is shorter with deep slots and extra strong base plate.



#### **BOHEM Bracket Set**

"SUPER HOLLOW" set, perfectly machined in British dimensions this French production is really light with its full hollowed axle and distinctive cut-out lockring. First class chrome plated with 3 lengths of axle, 127, 132 and 135 mm. the set weighs only 7½ ozs.

# BATAM Pump Adaptor

The BATAM is the most popular of all push-on adaptors due to its solid brass construction. Used in place of the loose pump connection the BATAM saves valuable seconds, being ready for immediate use at any time. Spare rubbers are available if required.





# Handlebars & Stems with a World-wide Reputation

ABSOLUTE SECURITY is ensured by the method of manufacture, and the use of First Class Materials, particularly with regard to the light metals, enables A.V.A. to guarantee all handlebars. The most modern installations in the works give all accessories an impeccable finish, thus achieving the maximum resistance to oxydisation A.V.A. designs are produced in collaboration with racing champions and leading cycle tourists.

A.V.A. SUPER-DURA dural stems are supplied in 2\frac{1}{4}", 3\frac{1}{4}", 4" and 4\frac{1}{4}" forward, 8\frac{1}{4}" stem.

Bends are illustrated on the Super-dura duralumin stem.



#### Super Riviera

15½" wide, 5½" drop, 3½" forward. One of the most popular of postwar bends with a short forward reach and medium drop.



15½" wide, 6" drop, 4½" forward. This is the bend for the distance rider, square and comfortable, with grip slightly turned out to avoid wrist ache in long events.





#### Criterium

144" wide, 54" drop, 44" forward. An old favourite, the slightly narrow bar giving a good square top position.

#### Pelissier Route

15½" wide, 6½" drop, 4½" forward. The pre-war favourite and still very popular. Wider, deeper and more forward, this is a real speedsman's bend.





#### Azureen

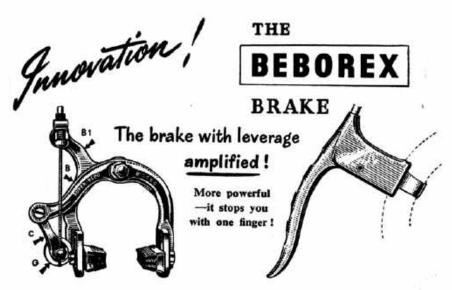
15½" wide, 6" drop, 3½ ' forward. A really modern bend with it's short forward reach, deeper drop and sloping grip.

#### Le Randonneur

16" wide, 4½" drop. 4½" forward. The tourist s favourite, giving a perfect touring position. A slight lift from the centre enables the Continental type of touring brake levers to be used, so avoiding riding down hill on the drops.



SEE SEPARATE LIST FOR PRICES



Here is the 5 star brake that is more robust than any you have ever handled before.

Made famous by the late STAN OCKERS in the Tour de France and used by KEN RUSSELL during his Tour of Britain success, this brake, made in maximum strength duralumin has features in design that are both different and better.

No other brake has all these Star features :-

#### \* LEVERAGE AMPLIFIER

The arm B, longer than B1, is actuated by pulling on lever C which rests on arm B1 by the intermediary of the pulley wheel G, so combining the action of the two unequal arms, therefore amplifying the least pressure put on the control lever.

#### \* MOVEABLE CABLE STOP AND TENSION RELEASE



To give clearance for a buckled wheel or tyre or for a quick racing wheel change, push the barrel T with the thumb into position T1. The brake blocks are thus moved away from the rim without altering the braking efficiency. This change can be effected without dismounting from the cycle.

#### \* HOODED LEVER

The hooded lever is beautifully shaped to fit the hand, and in addition has these exclusive features. Extra long top hood rest — Hood top shaped into cable cup — Lever imprinted with knurled finger grips — Spring steel clip held with hidden extra strong nut and bolt.

#### \* SPRING ACTION

The extra strong double coil spring operates smoothly behind studs incorporated in the brake arms. No snatching due to spring hooks causing wear in the dural arms.

#### \* INCREASED ADJUSTMENT

The brake block shoe slides are extra long to allow full adjustment to suit both popular rim sizes, enabling the brake to be used for all purposes.

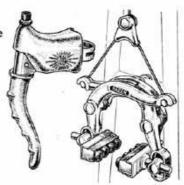
# FRENCH SPECIALITIES



CLB introduces a new centre pull brake, the

#### RACER COURSE

Made in highly-polished dural in a design that offers efficiency and robustness with absolute security and incorporating several inovations. The brake is supplied with the CMC racing lever fitted with attractive rubber lever hoods.





These handsome French cranks are constructed in nickel-chrome steel with a new superior chrome finish in British threads and dimensions. Finely drawn they are fluted on all four edges and on the front face enabling the weight to be reduced. Two models for single or double chainwheels are available in either 3-arm or 5-pin fixing as follows :-



#### 'PROFESSIONELS RECORD'

weight 16 ozs. pair.

No. 300S 3-arm N.G.C.C. for single chainwheels.

weight 16 ozs. pair. G.C.C. for double chainwheels. No. 300D 3-arm

No. 500S

5-pin N.G.C.C. for single chainwheels, weight 20 ozs. pair.

G.C.C. for double chainwheels, No. 500D 5-pin weight 20 ozs. pair.



A range of superb chrome cranks made for the rider who prefers strength to lightness. These cranks have given satisfaction when other types have failed.



#### 3-ARM PATTERN

H.C. chrome bayonet fluted, weight 18 ozs. pair.

(Length 64" N.G.C.C. or G.C.C.)

S.C. chrome square solid pattern, weight 20 ozs. pair. (Length 61", 61", 7" N.G.C.C. or G.C.C.)

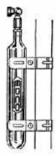


S.C. chrome square solid pattern, weight 20 ozs. pair.

(Length 61" 61" G.C.C. only.)



# French SPECIALITIES



#### EDCO COMPRESSED NITROGEN PUMP

Fitted with a quick-fit push-on racing adaptor and controlled release valve the EDCO will inflate a tyre to any desired pressure quickly and safely. Size only  $8\frac{1}{2}$ " x  $1\frac{1}{6}$ " the EDCO fits a racing vest centre back pocket or can be attached to the frame by clips or holder. Inflates a tyre in 2 seconds with half a turn of the body, capacity for 2 tyres. The nitrogen used is non-inflamable, harmless to the tyre and will not leak during use. Standard issue to all professional riders the EDCO can be refilled cheaply by our return post service.

# **JULIEN PRUNIER**

#### NITROGEN PUMP HOLDER

The PRUNIER is a patented pump holder made specially for the EDCO pump. It is soundly constructed in brazed chrome steel wire, spring loaded to give an instant release and return to hold the pump firmly in the base cup. Save those precious seconds — with one quick movement, put the pump valve into the top loop, push, and the pump drops into the cup, firmly held by the return spring.



### ECLAIR BRAKE CABLE CLAMP

A neat two-piece dural double cable clamp held together with a single centre screw. All popular colours in flamboyant finish.

# FIFON CHAIN RIVET EXTRACTORS



The original bronze extractor and still the best. It will remove or re-fit either  $\frac{1}{6}$  or 3/32 chain rivets easily. The hardened steel punches can be replaced at any time. No. I pattern is short and the spanner end flat to fit into a vice if required. No. 2 pattern is longer, giving a good hand grip for roadside repairs. The FIFON is light in weight and cannot rust — it should



# FIFON SPOKE NIPPLE KEYS



Bronze pattern is light and rustless and fits two popular sizes of cycle nipple. The two flats give a positive grip to finger and thumb. Professional type is in round cadmium plated steel and fits all popular sizes of nipples. Extra strong.



## G.B. - PARIS HANDLEBAR END STOPS

be in every cyclist's tool kit.



This French production is without doubt the most popular of all end stops. Made in plastic and rubber the stop expands after fitting by tightening the expander screw. Available with either small or large end cap executed in all popular bright colours.



This firm has a world-wide reputation for quality products, up to the minute design, race proved performance, full servicing and above all economy.

Here are details of three of their most popular products.

# DERAILLEUR Tour de France

Simple, light and rigid the TDF gear will cover the full range of ratios normally called for in racing, touring or town use. Suitable for a freewheel range of up to 15 teeth variation. The rigid construction is foolproof and at the same time allows easy and quick wheel removal.

# REAR DERAILLEUR ALLVIT

The parallelogram gear that is different and better with the derailling cage rising to engage the smaller sprockets and falling along the contour of the freewheel to easily engage the larger low gear

Exceptional range allowing variation of 15 teeth on freewheel and 13 teeth on double chainwheel.

Adaptable for \$ or 3/32 freewheels in 3,

4 or 5 speeds. Any screwdriver will effect a quick

adjustment of the check screws. Chain tension adjustment is made by

hand.

Design enables full wrap of the chain over the sprocket and climinates any jump or slip.

Model 1900 is supplied with single down tube right-hand control lever, 1884 or 1840.

# FRONT CHANGER ALLVIT

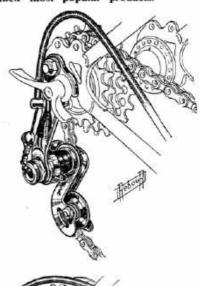
Cable operated parallelogram action front changer suitable for ½ or 3/32 chains, for double or triple chainwheel with large or small tooth variations.

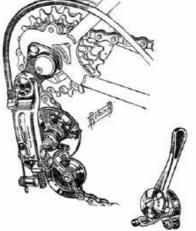
Extremely light and specially designed to enable the fitment of a pump behind the seat tube.

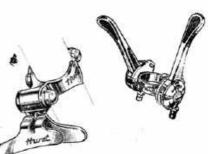
Model 600 is supplied with single down tube left-hand control lever 632 or 641 (L.H. with double clip).

Allvit Ensembles

Model 1960. Front and rear gears complete with double down tube control 1882.







# IDÉALE

# The Continent's Finest Saddle

Since 1890 IDEALE have been manufacturing top quality Cycle Saddles.

Today their high standards of production, allied to quality materials, and modern design have produced a leather saddle which is recognised as without equal. TOM SIMPSON, Britain's first Tour de France leader, is amongst the many "pro" riders who use IDEALE, realising that only IDEALE quality can withstand the demands of modern stage racing.

More and more of Britain's popular lightweight cycles are being fitted with IDEALE—proof that our manufacturers realise the importance of using a quality saddle even on cheaper machines.

Here is the STANDARD SPORTS RANGE - unbeatable for value.

Model	Size	Weig	ht	Flap Sides	
Norex	11‡" x 6‡"	llb.	50z.	Perforated	Club 5
Franceix	11″ x 6½″	Ilb.	4oz.	Plain (Tan colour)	Company of
Club 5	11}" x 6}"	Ilb.	7oz.	Plain	Sport 41
Sport 41	11‡" x 6½"	11b.	7oz.	Perforated	a Source
Course 44	11‡" x 6 <u>‡</u> "	116.	7oz.	Perforated	Course 44
Record 43	101" x 51"	11b. 1	0≟oz.	Perforated	
Special 46	10₹" x 5‡"	Пъ. 1	0 <u>‡</u> oz.	Perforated	- CIDEAL STATE

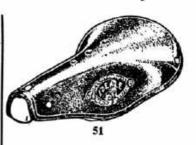
The Standard Sports Range of Saddles are made with top quality butt hide tops on frames with two high-strength wires and improved clips — bag loops fitted. Models 43 and 46 are fitted with a patented removable steel wire spring on a single point of attachment to the cantle plate ensuring rapid removal and so enabling the leather to be broken in manually. (See illustration on next page).

# IDEALE

'RECORD' and 'PROFESSIONAL' RANGE with these 'extra' features.

- · Butt hide tops, quality tanned with oak bark.
- Solid copper rivets.
- \* Reinforced frame with fine adjustment.
- \* Patented nose tension, easily adjustable with spanner or tommy bar.
- \* Reinforced pillar clip.

Model & Size	Weight	Flap Sides
Record 51 10 x 6	11b. 10½oz.	Plain
Professional 51 10 x 6	11b. 12oz.	Plain
Record 52 114 x 6	11b. 94oz.	Plain
Professional 52	11b. 12oz.	Plain
Record 59 114 x 6	11b. 6oz.	Perforated
Professional 59	11b. 7oz.	Perforated



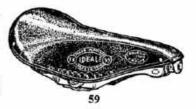


NOTE:— Model 51 has patented Cylo-Cross nose.

Model 51 and 52 have patented removable steel wire spring (see illustration).

Model 59 has spring consisting of two removable duralumin spars.

Record Saddles are made in Black leather. Professional Saddles are identical but are specially WEATHERPROOFED.



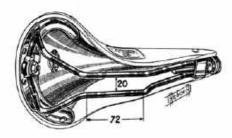


Illustration showing the patented IDEALE removable steel wire spring with single point of attachment featured in Models 43, 46, 51, 52, 88, 89.

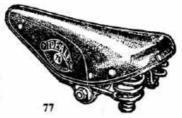
Note also the IDEALE adjusting nose.

IDEALE have produced a special touring saddle.

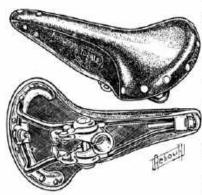
No. 77. CYCLO TOURIST. Size 10" x 6. Weight 2 lbs 5 ozs.

Natural leather. Special Cyclo-Cross nose.

Reinforced clip. Two COIL SPRINGS at rear.



# IDEALE SPECIAL COMPETITION SADDLES



Accepted by the Continental 'pros' as the world's finest leather racing saddle by reason of these exclusive features :-

New form to avoid triangulation of the top.

Extra quality tanned butt hide, with internal mudguard.

Detachable patented 2-wire springs.

adjusted reinforced front Easily tension.

Red copper rivets across back of the cantle plate.

Special patented frame.

Competition saddle clip guaranteeing non-slip security and incorporating spare tubular or cape carrying strap. Saddle Top size 101" x 6".

#### SPECIAL COMPETITON SADDLES are available in 4 models.

88 SC and 88 C have full side flaps. 89 SC and 89 C have cut-away sides.

88 SC and 89 SC are fitted with the SPECIAL COMPETITION non-slip clip.

88 C and 89 C have special frame to fit NITOR 1963 or CAMPAGNOLO Seat Pins

and the new Saddle Clip, the

# IDEALE SPECIAL COMPETITION

incorporating a security lock and a tubular tyre or cape holder.

This clip will bring your favourite saddle right up to date.

Adjustment by serrations of the standard saddle clip has long been criticised. particularly by racing men who have been unable to adjust the incline of the

saddle to fine limits.

If the serrations are very fine, permitting exact adjustment, there is risk of

the saddle tipping at any time.

On the other hand, if the serrations are more pronounced the adjustment is not precise and this is equally annoying.

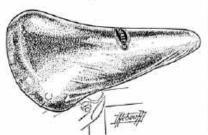
The new IDEALE saddle clip overcomes these faults.

The surfaces usually serrated are lightly knurled and separated by a semi-pliant washer. The locking is effected by the usual axle bolt and two nuts. The cyclist adjusts his saddle position as with a normal clip then when set.

he strongly tightens the two axle-bolt nuts and also the two smaller securing nuts and bolts which prevent any movement or alteration of position.

If for any reason he wishes to remove the saddle from the pillar, it is sufficient to loosen the two main axle nuts leaving the security nuts tightened. The position is therefore conserved and the saddle easily returned to its initial place

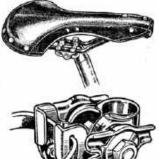
Part of the rear of the cip has been extended, turned back and slotted. A quick release strap is supplied and fitted through the slots acting as an excellent tubular or cape carrier.



The new IDEALE clip is available for the usual type of two wire saddle frames and also for the special IDEALE duralumin frames (Model 59).

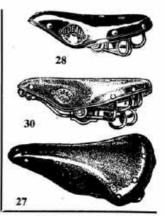
All RACING type saddles are fitted with numbered IDENTITY plate and supplied

with printed guarantee. Protect your leather saddle from the weather and also your trouser seat from contact with greasy leather — use the IDEALE saddle cover, made in translucent plastic it will easily fit all models.



#### IDEALE SADDLES FOR JUNIOR A Range of Six Models

Model	Type	Material		
130	BOYS	NORTAL PLASTIC		
28	BOYS	Leather 2 wire frame		
29	GIRLS	2 ., ,,		
30	BOYS	4 ,.		
31	GIRLS	4 ., ,,		
27	BOYS	RACING Model		





and for carrying "baby" the best of all child carriers -

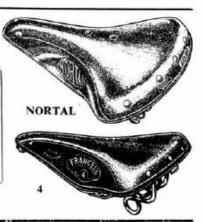
#### TAN-SAD JUNIOR

adaptable for all types of cycles and mopeds.

Delivered with - SECURITY STRAP. LUMINESCENT BACK. MATTRESS seat in VINYL Extra. In all colours.

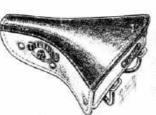
#### A Range of 4 ROADSTER Models.

Model	Type	Material
NORTAL NORTAL	GENTS LADIES	Moulded in PLASTIC of High Resistance in Maroon or Fawn.
4 PRANCEIX	Commission of the Commission o	1st choice LEATHER with
6 FRANCEIX	LADIES	4-wire frame.



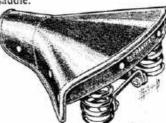
#### MATTRESS TOP Models

No. 22 A new Supple Saddle suitable for gents, or ladies in attractive 2 colour design. Supplied with GREY sides with MAROON or BLUE top or top colour to choice.



No. 24. FRANCEIX. A sturdy Saddle suitable for either cycle or moped with VINYL top supported on 2 strong coil springs.

No. 22 AR. For safety at night, model 22 is available as No. 22 AR with a patented LUMINESCENT back. This advantage, exclusive to IDEALE, means that every source of light is stored and reflected later over a long period by the luminescent back of the saddle.



# IDEALE MOTORISED SADDLES

A Programme that incorporates the most modern Saddle improvements with the famous IDEALE quality of workmanship and materials, allied to patented IDEALE features.

#### TYPE 23

A saddle suitable for cycles as well as mopeds.

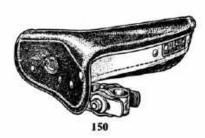
Black VINYL EXTRA top on strong

covered mattress springs.
RIGID FRAME incorporating 2 strong COIL SPRINGS.

#### TYPE 25

Similar to 23 but incorporating the famous IDEALE LUMINESCENT back. Top available in colour.





#### **TYPE 150**

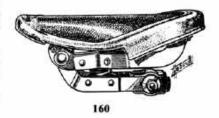
This saddle is suspended with the point of articulation at the front and has a large central cylindrical compression spring. The top is in VINYL EXTRA in any of the famous IDEALE colour ranges. Superior rigid frame and clip and LUMINESCENT night safety back.

#### **TYPE 160**

This model has the same type of central suspension by single spring as 150 but the top of the saddle is composed of a double cover of rubber.

This interior rubber comes into use if the rider is very heavy or should the condi-tion of the road be such as to cause excessive springing.

The top of this saddle is in LIGHT GREY colour.



IDEALE Saddles have been famous since 1890 - proof enough that you can trust the products bearing this famous Trade Mark.



# INTRODUCING





#### "LIGHTEST IN THE WORLD" CYCLE DYNAMO SETS!

JOS Lighting Sets are the result of the most practical research into the cyclist's lighting requirements.

The sets combine working dependability, mechanical soundness and high efficiency with originality of presentation. Made of ultra-light non-rusting alloy of high resistance, they offer a considerable saving in weight compared with other types. These features are most important to the all-year-round cyclist.

#### HEADLAMPS

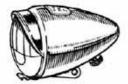
Special 9 star features :-

- Brilliant mirror reflectors, non deteriorating.
- Unbreakable perspex glass.
- Anti-dazzle built-in visors
- Automatic quick release glass fixing clip (except
- SECURITY finger locking terminal screw on 430 and 431. \* SECURITY
- \* Easily removable bulb holders.
- Aerodynamic streamlined design.
- Supplied with either mudguard or lamp bracket attachment.
- Superb polished finish in CHROMINOX alloy.



14" drame. "bull's eye" 430C. diameter. Magnified

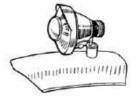
glass. UNIVERSAL fixing stay permitting easy fitting to guard eye, brake bolt, stem bolt or front fork dyno, bracket, Weight loz.



663Cv. 25" diameter. Weight 3 ozs. Anti-dazzle built-in visor.



513Cv. 2" diameter. Weight 3 ozs. Anti-dazzle built-in



431C. As 430C but with STUD fitting for front mudguard extension.

#### HEADLAMP BRACKETS



Standard English type lamp attachment fitted as standard to all headlamps except 430 and 431.

visor.



GT Mudguard attachment fitted as alternative to PL if required.



PG Handlebar stem type supplied if required at small extra cost.

#### DYNAMOS

#### Special features :-

- \* Made in CHROMINOX treated nonrusting alloy.
- Dynamo bodies are of 35 m/m diameter and are treated by anodic oxidation and are guaranteed against any change in finish.
- The JOS method of articulation on vertical axle used with push button spring release (except on TC - horizontal axle) is exclusive and ensures a smooth pulley drive under all atmospheric conditions, rain, snow, frost etc.
- \* De Luxe dynamo XA has a rotor with special poles, which reduces the pull for equal power. For example, the 3-6w has less pull than the normal 2.7w for much greater power.
- \* Built-in spring cable grip on TC. SECUR-ITY type finger locking terminal screw on XA.



TC 6 volts — 3 watts. Weight 6} watts. Weight 63 ozs. Support pivots on horizontal axle.



6 volts watts. Weight 9 ozs. Special CHROMINOX finish. Support pivots on vertical axle.

#### DYNAMOBLOC SETS

This popular clubrider's set consists of type TC dynamo with 513 Cv headlamp attached in one unit.

The support axle is extended torward so as to avoid any interferance with the brake blocks.

B504 Cv. 6 volts - 3 watts. Weight 71 ozs.



#### DYNAMO SUPPORTS

Special design ensures a correct position for the dynamo and avoids any possibility of movement. Special oxidised finish gives protection and good appearance. Types BF and BH have built-in earthing serews.



Front fork bracket supplied with B504Cv Dynamo-bloc set.



only on request.



BH. Rear pencil stay BN. Roadster rear bracket supplied with stay bracket supplied TC and XA dynamos unless requested other-

Recommended bulbs.

TC and B504 Cv dynamos

XA dynamos

Head.

6v. -35A. or 6v. -4A.

6v. ·5A.

Tail.

6v. ·1A. or 6v. ·04A.

6v. ·1A.

All JOS Dynamos are stamped with the bulb reference and carry a guarantee of 3 years. Full range of spares are available in Great Britain with prompt servicing facilities.

# FRENCH SPECIALITIES

# J.B. DYNAMO PULLEY COVER



This neat moulded rubber all-over cap is available in two sizes, in all colours and has deep scrations to give a sure grip to the pulley wheel in wet or snowy weather. Saves replacing a worn pulley wheel — essential for all dynamo users.

#### LA VIPERE BRAKE BLOCKS



Popular studded pattern giving smooth and safe braking under all types of weather conditions. Two types are available — HAVANE No. 4 in white rubber for steel rims and PYTHON No. 5 in softer red rubber for alloy rims.

## ANDRE LEDUCQ PUMP CLIPS

Three types of popular quick-fit pump clips, all light in weight and practical in use.

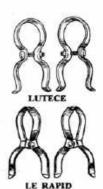
LE RAPID — spring loaded two-way clip, plastic covered in attractive colours on chrome.

LUTECE — one piece clip with open spring end. Chrome plated but covered in coloured plastic for protection.

G.F. 28 — Standard type clip-on pegs in silver finish.







### LIGHTRACE

#### BRACKET FITTINGS

#### HEAD FITTINGS

2 models available both constructed in specially treated chrome nickel steel with 3 lengths of axle for single (128 mm.) double (130) or triple (132) chainwheels.

Supplied in British or Continental standards.



GMA model fitted with standard solid axle. Weight 10 ozs.



LELEGE model fitted with full hollow axle specially strengthened. Weight 8 ozs. Extra light, chrome micro-adjusting. Races specially ground and hardened in finest nickel-chrome steel. French or British standards. Weight 5 ozs.



#### MAFAC BRAKE BLOCKS

As fitted to the famous MAFAC brakes, these blocks are constructed in a special black rubber, 4 studded for solos and 5 studded for tandem use.





#### PEDALS ARE FAMOUS THROUGHOUT THE WORLD

Pierre Lyotard, the original designer of the quill pedal produces an unrivalled range of light-weight pedals, each manufactured from the best of materials in either finest chrome steel or polished duralumin, every model designed for a particular purpose. Features of LYOTARD pedals include hollow spindles and solid centre barrels.

#### **Duralumin Range**



No. 460 COURSE 3½" wide, extra light 12oz. pair



No. 240 COURSE 4" wide, 121oz. pair



No. 45 CA. Piste, steel body, quill cage in duralumin. 31" wide, 12oz. pair.

Model 45 TER is similar to 45 CA but in all duralumin

#### Chrome Steel Range



No. 460 A. COURSE popular double sided sports type 3½" wide, 18oz. pair.



No. 15B Tour de France solid centre barrel, double sided, 3½" wide, 18oz. pa:



No. 15S Piste & Route single sided, solid centre barrel,  $3\frac{1}{2}$ " wide,  $16\frac{1}{2}$ oz. pair.



No. 23 Piste Marcel Berthet platform type, solid centre barrel, 3\(\frac{1}{4}\)" wide, 14oz. pair.



No. 45 PISTE single sided quill, solid centre barrel, 3½" wide, 16oz. pair.

MODELS 15S & 23 are also available threaded for toeclips. Ref. TF.



No. 38 COURSE LUXE double sided, solid centre barrel, 3½" wide, 16½oz, pair.



FAUCHEAUX new pattern single sided quill, solid centre 3½" wide, 16oz. pair.



No. 46
Course and Cyclotouriste
World patented design
giving a choice of reach
simply by reversing the
pedal. The concave side
gives a rational support for
the foot and the reverse
side being flat allows a
relaxation of the leg. 3½"
wide, 150z, pair.

Our LYOTARD pedals are made especially in British Standard threads and dimensions, and a full range of spare parts is always available.

## FRENCH SPECIALITIES

#### MAVIC SPRINT RIMS

These superb sprint rims are manufactured in finest duralumin. The spoke holes have water-tight ferrules fitted, giving the rim exceptional strength, and the deep flat sides have ample braking surface. Drilled 28/28, 32/40 or 36/36, the MAVIC is available in 27" only.



Two models - PISTE 13 ozs. and MONTLHERY.

#### **METAFIL Inner Wires**

A range of inner wires unequalled for quality. A full range is available to fit most of the popular modern cycle brakes and derailleur gears. All wires are individually packed.



#### **OZANNE Thorn Catchers**

The original racing thorn catcher in fine steel wire fully adjusting in all directions. The best — in exclusive gold finish.



#### CHARLES PELISSIER



Here is the favourite with the lightweight enthusiast. Designed by the famous French champion, the PELISSIER is made in the lightest of duralumin and is cleverly spring loaded and pivoted in its centre. Highly polished and streamlined it enhances the appearance of any machine.

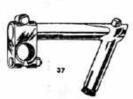
# PHILIPPE No. 40 HANDLEBAR STEM

Made in super quality dural, re-inforced and highly polished with attractive red enamelled cut-outs. Fitted with expander bolt this stem is available in 4 forward lengths; 7, 8, 9 and 10 cms.



#### No. 37 BIS HANDLEBAR STEM.

A superior chrome stem with fully adjustable slider. Supplied with expander bolt fitted.



# PATURAUD Toeclips & Straps

# Toestraps

No scraps or rejects from the tannery—only the very finest chrome leather used.



ECLAIR No. 15 A really super chrome leather toestrap specially treated to resist wet. Cadmium plated non-rusting and non-slip roller buckle.

PATURAUD SUPER No. 30 A similar quality to ECLAIR but with original tie end acting as a grip when tightening or as a stop when releasing. As used in the Tour de France.

PATURAUD "CAMPIONISSIMO"

Latest introduction super quality toe-strap with non-slip buckle.

All types available in Red. Blue, Gold, Green or Natural colours.



16

22

# Toeclips

Guaranteed Manufactured in tempered steel.



Chrome ribbed, tempered steel.

#### PATURAUD "GRAND LUXE" No. 16

Chrome plated in a new shape to give maximum comfort. Two sizes, medium and long. As No. 22 without leather covering.

#### PATURAUD "GRAND LUXE" No. 22

Chrome with the front bars covered in chrome leather. Protects the shoes.

#### FEMINA "GRAND LUXE" No. 18

Chrome. Special short pattern for ladies' use. As No. 22 but without leather covering.

#### FEMINA "GRAND LUXE" No. 18c

As No. 18 with leather covered front bars.

#### PATURAUD AUTOMATIC No. 23

Chrome, adjustable to fit all sizes. Top and base firmly clamped together with study giving a choice of five non-slip positions. Easily altered.

#### PATURAUD AUTOMATIC No. 23c

As above, but with leather covered front bars.

#### PATURAUD TOURIST No. 20

Chrome, with clamping bolts to fit to rubber pedals, two sizes.

#### PATURAUD VILLE No. 27

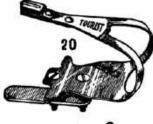
Chrome, short pattern for town use without toestrap.

#### PATURAUD "COUREUR" No. 9c

A new extra strong toeclip in cadmium plated piano wire formed in the modern square shape.

#### PATURAUD PIESCHO No. 38

Solid chrome leather toeclip cover held by toestrap. Full protection against cold, wet and mud. PATURAUD toeclips and straps are used by the Champions of France, World champions and record holders, and winners of the principal stages of the Tour de France. Riders ask again and again for PATURAUD specialities.









# FRENCH SPECIALITIES

#### PIGEON'S WING CHAINGUARD

This Strong Lightweight Top Chainguard is attractively finished and made in polished duralumin. Popular on touring machines giving the necessary proteotion. Supplied complete with all fittings.



#### ROBERGEL - THE WORLD'S FINEST CYCLE SPOKES.

Anguetil - Simpson - Bobat - Elliott - Van Steenbergen - Riviere. Champions of the Road prove these spokes to be the best.

#### Available in three qualities:

ETOILE - for touring and sports cycles. Specially-treated stainless-steel coated with zinc or chrome. Available in 13, 14 or 15 plain gauge or 13 x 15, 14 x 16 or 15 x 17 double butted.

SPORT — for racing and sports cycles. Specially-treated stainless-steel coated with zinc. Available in 15 x 17 double butted gauge only.

TROIS ETOILES—for special competitions and de luxe cycles. Guaranteed chrome-nickel stainless-steel throughout. Available in 15 x 17 double butted gauge only.

#### SIBIEN FRONT BAG SUPPORT

Popular French support in light aluminium finished steel, suitable for attaching only to alloy mudguards. Attachment by two rubber cushioned bolts with additional support from four loop pattern stays from fork ends secured in six strong eyebolts. The design provides for fitting a front mudguard dynamo headlamp.

TRANSFIL Cabling

"Suplex" superior quality ribbed plastic in attractive colours of Red, Grey, White, Green and Black.
"Dynoflex" Dynamo Cabling in Red, Blue, Grey or

Transparent.

# VIT BOTTLE CAGES

THE most popular bottle cage. Used by almost every leading roadrider. Patented design strongly constructed in chrome plated heavy gauge steel 
wire weighing only 3ozs.



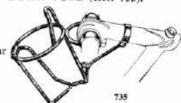
Expands when bottle inserted by means of TWO springs closing firmly to prevent any rattle.

Standard models for HANDLEBAR (Ref. 730) or DOWN TUBE (Ref. 731). Plastic bottle models for HANDLEBAR (Ref. 732) or DOWN TUBE (Ref. 733).

730

Down Tube (with 2 clips) (Ref. 734). Special Handlebar (Ref. 735) with 3 handlebar

Plastic Bottle Models have an additional loop (as lower illustration) to hold the plastic bottle firmly in place.





The most famous tyre firm in France introduce the new

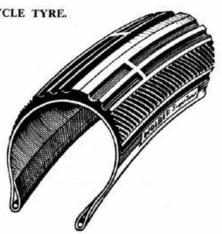
#### SUPER SPORT

HIGH PRESSURE WIRED-ON CYCLE TYRE.

Designed expressly for the British market to fit 27" x 1\frac{1}{4}" High Pressure rims these tyres fill the long felt need for a better product.

Look for these "Super Sport" features :--

- Weight only 13½ ozs. much lighter than the average Pressure tyre.
- Deep sided black tread with exclusive diagonal ribbed walls for safe cornering.
- Centre section deep ribbed for effortless speed.
- Strong cord casing with flexible translucent walls.



The WOLBER "Super Sport" is the truest tyre ever made and the safest and most reliable.

SUPER SPORT inner tubes fitted with best quality French Presta valves and neat narrow rubber rim tapes are also available to complete the set—all at reasonable prices.

. . . or if you prefer "sprints" WOLBER offer the following tubular racing tyres:—

INTERNATIONAL Weight 14 ozs. with ribbed centre and file walls tread.

SPECIAL COURSE Weight 13 ozs. with file tread.

RENFORCE the famous all red fully rubbered 22 oz. tubular,

YOU WILL HAVE NO TYRE TROUBLE IF YOU FIT WOLBER

REMEMBER - if you want the best - you want

French SPECIALITIES

# 666666666666666666666666666666

# CO2 (Carbon Dioxide Gas) RACING PUMP

Re-introduced in an improved form the PENNINE racing pump is now made in light polished alloy tubing and is fitted with two attractively coloured plastic hand grips.

Look for these 8 STAR features :-

- \* Weight complete with cartridge only 34 ozs.
- The pump fills a cycle tyre to the desired pressure in one second.
- The tyre will hold the pressure for 8 to 12 hours,
- easily and Replacements are cheaply obtained everywhere.
- Each cartridge suffices for one tyre and spares can be carried in the pocket.
- No damage will result to the cycle tube by using the Pennine pump.
- The pump can be carried in the pocket or held in a quick release single clip which can be brazed to the cycle frame if required, (See Fig. 1).

#### INSTRUCTIONS FOR USE.

Fit tyre to rim.

Test that the tyre valve is open. Push the pump end firmly over the valve,

With a quick movement turn the extended lever handle, which will be found in the shallow slots, 180 degrees until touching the body as shown in Fig. 2. This move-ment will fire the "Sparklet" cylinder and draw the gas into the cycle tube.

5. Free the lever.

6. Close the tube valve.

#### INSERTION OF A NEW CHARGE.

Hold the lever handle firmly with one hand.

Draw the body of the pump away until the lever catches into the longer slots.
 The lever can at once be taken away.
 The old cartridge falls out and the new

one, narrow end first, can now be inserted.

Replace the lever into the shallow slots.

Fit the pump body back into the Pennine brazed pump elip or other type of holder, once more ready for instant use.

NOTE:-If the pump is carried in jersey pocket it is advisable to leave the release lever in the longer slots so as to ensure there is no unintentional discharge.

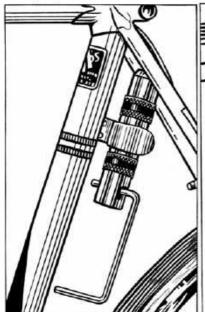
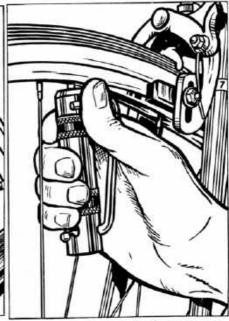


FIG. 1. PUMP HELD IN BRAZED CLIP. LOADED AND READY FOR



PUMP AFTER FIRING. FIG. 2.

BEWARE — USE ONLY GENUINE "SPARKLET" CYLINDERS



Designed, tested and proved by active cyclists, men with a practical knowledge of your sports needs — produced in Europe's finest factories from top quality materials, MILREMO Accessories are offered at unbeatable prices.

Fully guaranteed and backed by a reliable Spares Service, MILREMO is the answer to your search for reliability.



# OFFERS THE MOST COMPREHENSIVE RANGE OF ACCESSORIES

#### BAGGAGE STRAPS

Exceptionally strong well braided elastic these are the handiest of straps, useful for all purposes. The elastic ends are fully turned back and firmly gripped by the spiral metal ends. The end hooks are fully plastic coverito avoid damage to enamel or material. Available in all popular sizes, single or 4, 6, or 8 way spiders.



Drinking

BOTTLES

Ask for the Bottle with the famous three-colour MILREMO badge and you will be buying the best.

Made in a superior pearl white plastic that is non-odour this bottle will stand

Two models are available — both ribbed, for easy handling and to fit snugly into the MILREMO cages.

Tour de France

TOUR de FRANCE model has the original plain double seal cap with extended lip and flexible hinged attachment loop.

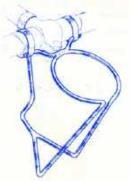
GIRO d'ITALIA model has a choice of two caps —

the "SPRINKLER" which is drilled with small holes allowing the liquid to be "showered" over the head as a cooling refresher,

and the "DRINKING" which has a centre hole to take a polythene drinking straw. This hole can be sealed by the hinged plug.

The drinking straws, full length, can be obtained as an extra.







These Cages have been designed to fit all popular bottles and are made in the simplest and most practical of styles.

Made in superb heavy gauge wire in a highlypolished chrome finish the cages are now improved by the addition of a coloured plastic MILREMO hadge plate on the base juction. A feature of the Cages is the chrome fixing clips perfectly shaped to fit over the cage wires. The MILREMO Bottle and Cage set makes the

The MILREMO Bottle and Cage set makes the perfect combination and is truly non-rattle and at the same time offering easy withdrawal.



Careful examination and exhausdesigners of every other modern cycle brake, has resulted in the MILREMO 'Galibier' incorporat-ing every worthwhile feature, at the same time eliminating those many annoying faults to be found in other products.

In addition the MILREMO brake gives you several new and unique features that have now been patented.

For some years the MILREMO designers have worked hard to overcome these braking problems.

#### MATERIAL

Only the world-famous French forged duralumin could give the brake the required extra rigidity combined with ultra lightweight.

#### DESIGN

The new popular centre-pull design was chosen to give ease of movement with maximum leverage and tyre clearance.

#### RETURN SPRINGS

Two independent springs were favoured rather than the changer single and less powerful horseshed type. The springs are secured firmly with one end into the centre fixed stirrup, the other extending to give maximum leverage at the very end of the pivot stirrup

#### CABLE QUICK RELEASE

Something positive, simple and easy to operate was called for. Nothing could be better than the MILREMO patented idea, a cam at the function of the cables operated instantaneously with finger and thumb. The resulting outward movement of the stirrup arm gives the maximum wheel clearance and allows closer setting of the blocks when in the closed position.

#### STIRRUP ADJUSTMENT

Another brilliant MILREMO patented idea enables the stirrups to be quickly converted from deep to shallow pattern or vice versa, samply by reversing the balt camy hidden behind the stirrup pivot bolts. One stirrup thus serves from and rear, deep or shallow a boon to the spares stockist

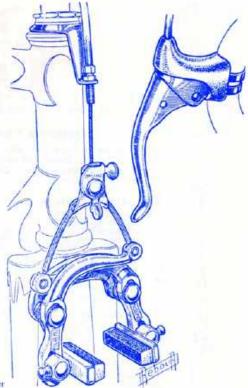
#### BRAKE SHOE FIXING

None of the existing fixing methods were really satisfactory, therefore an entirely new principle was evolved yet another MIL-REMO prigot. Each brake shoe can be moved independently in almost any direction and finally locked in position by a new double locking eyebolt thus ensuring absolute security unique in cycle brake design.

#### FIXED CENTRE STIRRUP

Solidly constructed in forged dural, movement is impossible by virtue of the squared centre hole locating with the square on the centre pivot bolt

# 'GALIBIER' RACING BRAKE



#### CABLES

Only first quality transmissions are used. The straddle wire is nylon sheathed for protection and has two strong end nipples securely locating into quick release slotted holes in the pivot stirrups.

#### CABLE HANGERS

These are constructed in chrome steel for extra rigidity and incorporate cable stops and long adjusters.

#### LEVER

Constructed in duralumin with these classic features: Hood top has popular forward reach shaped up to make a cable cap and is slotted for easy cable fitting. Inside edges of the lever closed to give protection. Complete absence of any protruding bolts. Chrome bar edp with solid T bolt and slotted fixing nut.

#### LEVER HOOD

Made in soft red rubber in an entirely new shape that is comfortable without being bulky. Fassly fitted and held securely without clips. Alternatively all round white complete lever hoods can be fitted

APPEARANCE
The "Galibier" has a highly polished finish and ultra modern appearance.

#### NAME

The brake is called "Galibier" after the most famous "col" in the history of the Tout de France

#### PRICE

We make the excuses for the high price of the Gallbier "—in designing the world's finest cycle brake, price was the last consideration.

#### 3-ARM MODELS

#### Whichever You Prefer

#### 5-PIN MODELS



### Will Meet With Your Requirements.



#### CHROME CRANKS

Made in high resistance specially treated steel by the finest craftsmen in Europe. Six models, all finely drawn and carefully fluted and finished in de luxe chrome plating.



Solid forged pattern in special square section, incomparably rigid. Weight: 20 oz. pair. Clearance: Semi GCC suitable for single or double chainwheels. Lengths: 6]", 6]", 7".

#### COURSE 33

Forged pattern in extra light section. Weight: 181 oz. pair. Clearance: Semi GCC suitable for single or double chainwheels. Length 1 61".

#### **CLUB 333**

Heavier square section. attractively fluted. Weight: 23 oz. pair. Clearance: Attaching bolts reversible to accommodate single of double chainwheel. Length 1 6;".

#### SPECIAL COURSE 50

Solid forged pattern in special square section, incomparably rigid. Weight: 21 oz. pair Clearance: Semi GCC suitable for single or double chainwheels. Lengths: 6]", 6]".

#### COURSE 55

Forged pattern in extra light section. Weight: 18 oz. pair Clearance: Semi GCC suitable for single or double chainwheels. Length: 6].

#### **CLUB 555**

Heavier square section, attractively fluted.
Weight: 20 oz. pair.
Clearance: 2 models.
NGCC for single. NGCC GCC for double chainwheels. Length : 61".





ALL MILREMO cranks are made for British threads and dimensions. The 3-arm pattern fits all popular CONTINENTAL 3-arm single or NOTE: double chainwheels including TA.

The 5-pin pattern fits all popular BRITISH and CONTINENTAL 5-pin single or double chainwheels including T.A.



Made specially to fit MILREMO cranks these excellent chainwheels are in de luxe chrome plating in all popular sizes.



SINGLE 3-ARM. To fit chains 1 x Sizes 44-46-47-48-49 50-52

MODEL 150

SINGLE 5-PIN.

To fit chains 1 x 1 or 3/32. Sizes 44-46-47-48-49 50-52.



# MODEL 230 DOUBLE 3-ARM.

To fit 1 x 3/32 chain only. Sizes 46/49, 46/50, 47/50, 48/52.

#### MODEL 258 DOUBLE 5-PIN.

To fit 3 x 3/32 chain only. Sizes 28/48, 38/48, 32/52, 46/49, 47/50, 48/52.







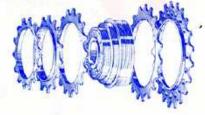
# 'ALL STAR' Freewheels

At long last a Multiple Freewheel that is simple, light, trouble-free and practical, that will give you the ratios you need.

Look for these "all star" features.

- . Extra smooth true running.
- Universal body for 4 or 5 speed.
- Designed for quick release hubs.
- · Interchangeable cogs, all detachable.
- Full range, 13 to 28 teeth.
- \* Precision guaranteed to 0.050
- Profile of teeth specially designed for quick gear changes.
- Bearing races are ground and lapped and set at extremity.

.... and for the rider who will have the best, the latest,



# MILREMO

# 'PROFESSIONAL' FREEWHEELS

Made regardless of cost in nickel chrome forged steel with extra smooth bearings, patented pawls and special tooth profile guaranteed against jump or buckle.

PRO MS66 in 14/16/18/21/24 or 13/15/18/20/23 or to order.

PRO TT33 in 13/14/15/16/17 ratio only,

MILREMO Freewheels are made to British dimensions and threads and a full spares service is always available.

Single freewheels for juvenile and adult cycles and multiple three and four speed ratios are also stocked.



#### 'ASTRO' HANDLEBAR END STOP.

Contructed in finest hard plastic in a patented and registered design that employs a tapered cone drawn internally, this stop has these other advantages:—

- Rustless, attractively coloured finish — a choice of Red, Black, Blue, White or Yellow.
- Non-usage of perishable materials such as rubber, etc.
- \* Absolute security no fear of the stop becoming loose and being eventually lost.
- \* Clean appearance—the head has a similar diameter to the external diameter of the handlebar.



# 'ARRESTA'HANDLEBAR REST.



Perfectly shaped in special hard plastic with chrome steel bar clip, these hand rests fit flush to the bar and have rounded ends and sides and weigh less than 1 oz. Ideal for a tandem back rider or for the fixed wheel enthusiast to supplement the machine with only one brake lever. Available in colours of Red, White, Blue, Green or Yellow.

**(PLASTOLUX'** Superior Glossy Adhesive Plastic Handlebar Tape. Five colours: Red. Blue, Green, Yellow, Black.

**'TWILDLUX'** Extra Strong Thick Twill Tape in non-slip herringbone pattern with a backing of clear adhesive, Six colours: Red. Blue. Green, Yellow, White, Black.



# MIL REMO

#### OFFERS AN UNRIVALLED RANGE OF

#### HANDLEBARS IN DURAL AND STEEL

4 models in finest polished duralumin.

**RENFORCE**—the only dural handlebar that will not whip. Reinforced internally by a dural tube  $6\frac{1}{2}$ " long permanently sleeved into the outer bar centre section by a patent process. Dimension  $15\frac{1}{2}$ " x  $5\frac{1}{4}$ " x 4".

end 3 standard models .

#### OLYMPIC-

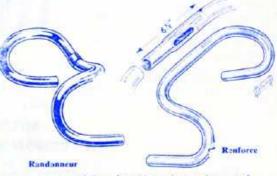
Width 16½" Drop 6½" Forward 3½"

#### FRANCO BELGE -

Width 141" Drop 51" Forward 51"

#### RANDONNEUR -

Width 16" Drop 4½" Forward 4½". The popular touring bend with a slight lift from the centre.



. . . . and for the rider who prefers steel

3 models in extra light steel in superb mirror finish chrome. Centre ferrules are attractively engraved with the model name encircled in laurel wreath badge.



Width 151" Drop 61" Forward 31"

GRAN PRIX -

Width 15" Drop 51" Forward 31"

GRAN PREMIO -

Width 15" Drop 51" Forward 41"



#### STEMS

GRAN

#### 3 Popular Models

CLUB First class chrome steel in the popular lapped drophead design. Supplied with expander in popular forward sizes.

GRAND SPORT Super dural, reinforced. Chrome expander bolt fitted. Has neat M initial on the head in colours. This stem is both stylish and practical. Highly polished with neat cut-outs on the top and sides, coloured in bright enamel this stem is available in forward lengths of 6-5, 8.

9 and 10 cms. Made especially to suit British fork columns and largest diameter bends this stem is fitted

fork columns and largest diameter bends this stem is fitted as standard by most of the leading British and European Lightweight Cycle makers. The choice of racing champions, too, including ANQUETIL, France's "ace" stage rider, Supplied drilled for cenire-pull brake cable at small extra cost.



GRAN PREMIO in special light steel, superbly heavily chrome plated this stem is in the modern style with extra wide clip. Fitted with neat multi-coloured MILREMO badge it is available in all sizes from 6 to 14 cms, forward.

Fit MILREMO handlebars and stems
— a range unrivalled for quality and design.



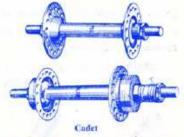
# HUBS TO SUIT

EVERY PURPOSE AND POCKET!

#### SMALL FLANGE MODELS

CADET In light chrome steel in S8/gear or D8/gear, fixed. Drilled 32/40 they are ideal for the beginner and wonderful value.





CHAMPION. Made in heat-treated, highly-polished duralumin these are the most popular lightweight hubs in use today. SS/gear or DS/gear/fixed, these are available with standard drilling of 32/40.

SUPER CHAMPION. Similar to the CHAMPION but fitted with hollow axles incorporating a trouble-free quick-release device. SS/gent or DS/gent/fixed, drilled in 28/28 or standard 32/40.



# LARGE FLANGE MODELS

CLUB Model Hubs are top value in best chrome steel. Drilled in standard 32/40 and available in SS/gear or, DS/gear/fixed.



SPORT in heat-treated duralumin offering lightness with durability. The most popular large flange hub. Drilled 32/40 with a choice of threading of SS/gear or DS/gear-fixed.

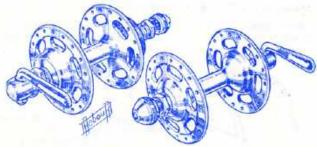
SUPER SPORT. Similar to the SPORT but fined with quick release and available in SS/geor or DS/gear/fixed, drilled 28/28 or 32/40

SUPER COMPETITION. Made in heat-treated alloy with all bearing surfaces processed in the most midden way. High precision machining results in perfectly smooth running. Curved stotted flanges, one-piece shell, slim smooth lines all make this quick-release hub the first choice for top racing machines. SS/gear or DS/gear/fixed, drilled 28/28, 36/36 or 32/40.



Sport

ALL MILREMO Hubs are made to British standards with fronts having 3/16 balls and 5/16 spindles and rears balls and 1 spindles.



# GUARD AGAINST THE WEATHER

Britain's best weather can be most enjoyable-remember 1959; and the worst can be . . . . well, remember 1960, 1961, 1962! You can guard against the wet with



There is a type for every kind of cycling activity.

FOR RACING - use these lightweight, highly polished duralumin extensions.

SPORT in square design with firmly rivetted bracket. 2 models -9" long for the front (AV) and 12" long two-way pattern for the rear (AR).





No. 13 No. 23 No. 12

FOR TOURING - 3 models in finest duralumin. (Illustrated sections).

> LE MARTELE Route No. 12. Semiballoon wide pattern in strong hammered finish.

> LE MARTELE Course No. 13. As above but slightly lighter and narrower. LE PAON Course No. 23. Lighter than above in pleasing ribbed pattern.

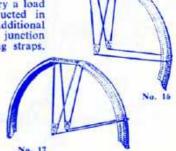
FOR CLUB RIDING - A model in lighter duralumin. (Not illustrated.)

PETIT JEAN. Light and strong with plain centre and ribbed sides which can be finished in a contrasting colour if required.

FOR CAMPING - A model that is exclusive.

PLATFORM No. 16/17. Designed to carry a load up to 200 lbs. these guards are constructed in strongest duralumin in hammered finish. Additional robust stays supported firmly in the base junction have loops at the top to take pannier bag straps.

All the above MILREMO dural guards are supplied with strong Continental pattern single loop stays attached by chrome eyebolts. The front guard has a vertical rubber cushioned fork crown fixing attachment.



No. 17

#### FOR ALL-PURPOSE CYCLING.

Models in Plastic and Celluloid.

MAESTRO. In U section plastic with special fittings. Complete with front mudflap they are available in the following colours: White, Black, Red, Royal Blue, Ice Blue, Bottle Green, Eau-de-Nil and Yellow,



MONARCO. A new guard made in superior quality Celluloid. Available in Red, Blue, White, Light Green and Yellow.

MAESTRO and MONARCO Mudguards can be supplied with approved rear reflector if required at slight extra cost.



# PEDALS-ATTRACTIVE IN DESIGN RELIABLE IN USE AND ECONOMICAL TO BUY.

#### 4 MODELS AVAILABLE.

CLUB in chrome steel is double sided with supporting centre strut and solid end can.

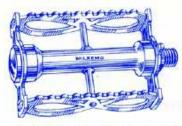




CADET in chrome steel is similar to CLUB but with slightly different design to side plates.

SPORT is also in chrome steel but is in the popular cut-away single-sided design with a distinctive pattern to the side plates. This pedal is also available with threaded studs for easy toeclip fixing and this model is known at the SPORT - T.





CHAMPION is made in corrosion-proof duralumin with fully machined pedal members. Single sided with specially designed machined end caps.

All MILREMO Pedals and other accessories are manufactured specially for the British market with all threads in British standards - Spares and Service are always available.

And the latest MILREMO introduction -



#### RAPIDO Pedal Tongues

Modernise your pedals with these ultra-light, nonrusting, quickly-attached pedal tongues and assist your feet to rapidly enter the toeclips, Weight only 1 oz. per pair!

#### "POCHE" Plastic Container

Ideal for cyclists this handy container will carry any small metal articles without causing excessive wear to the trouser pocket linings. Easily opened by squeezing in the hand. Colours - Red. Blue Black or Green.



# MILREMO PUMPS

The world's finest range of racing pumps, incorporating many exclusive patented features.

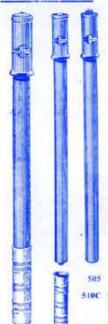
#### POLISHED DURALUMIN

901 PIUMA A super 18" pump with seamless metal plunger, diameter 15/16" fitted with flexible braided type N.2 connection 20 cms, long to h, al. popular Sclaverand valves.

904 PIUMA CORSA A special racing pump 18" long with practical knurled hand grip. Diameter 15716" fitted with type N.14/PC IMPERO patented quick-fit racing adaptor.

#### CELLULOID

in white, black and all popular colours.



SILCA-ESPORT An economy pump 15" x 15/16" diameter fitted type N.2 braided connection.

> SUPER CORSA A new superb racing pump. All white, 18" × 1", in celluloid with polished siceved metal hand grip. Complete with extra long braided H.P. connection.

505 SILCA A superb lightweight pump with extra large diameter body, seamless metal plunger, spring loaded handle, selected chantered and cupped oil soaked washer. Available in lengths 17", 18" and 19" x 1" fitted with type N.2 braided connection.

510 IMPERO The world's best racing pump As 505 but fitted with exclusive patented polished aluminium sleeved hand grip and patented type N.14/1 IMPERO racing adaptor in hea of braided connection. The end of this pump has a brass insert incorporating a threaded stud which screws into the adaptor, this being the reverse to usual practice. Coupled with screws into the adaptor, this being the reverse to usual practice. Coupled with the fact that the end of the adaptor is raised and squared to fit into a matching squared end in the adaptinium sleeved hand grip, the final combination of adaptor, sleeve and pump results in a joint which is not only air-tight but which cannot unscrew in normal use.

510C IMPERO EXTRA As 510 but fitted with natented racing IMPERO-CAMPAG adaptor incorporating CAMPAGOLO rubber covered horns to dispense with the need of a pump peg.

NOTE — this adaptor is different to the standard CAMPAGNOLO. adaptors having the patented IMPERO squared end. Available in 2 lengths, 18" and 19".

# SPECIAL TRACK RACING PUMP

650 PISTA Super extra powerful pump for inflating racing tyres at track events.

# CONNECTIONS AND ADAPTORS

tubulars.

N.14/1 IMPERO Special patented racing adaptor as supplied with 510 pump. N.14/1



N.14/PC IMPERO Special racing adaptor as supplied with 904 pump.



N.14 BELLON1 Standard type racing adaptor—can be fitted as alternative to pumps 901 and 505.



N.24 SH.CA-PISTA (Not illustrated) Special adaptor for track



510C

510

N.25 IMPERO-CAMPAG Special patented racing adaptor with horn rests, as supplied with 510 pump.



SCLAVERAND 20 cms. long braided connection as supplied with Nos. 901, 24 and 505 pomps.

Remember MILREMO - the only pump in the world with these super features.



A range of rims in finest duralumin - quality without equal - unrivalled for value.

#### FOR WIRED-ON TYRES . . .

#### CLUB

is a solid dural rim for the club rider, made especially to fit British size 27" High Pressure tyres. Deep in section to give a good braking surface, the dural combines strength with the advantage of being light and rustless.



Weight 18 ozs. pair, drilled 32/40.

FOR TUBULAR RACING TYRES - ALL STANDARD 27" SIZE . .

#### COURSE

is a hollow sprint rim at an economy price, ideal to the newcomer to the sport of cycle racing. Highly polished dural of hollow section, the rim bed is roughened to increase tyre adhesion and the flat sides are scored to facilitate efficient braking in wet conditions.

Weight 12 ozs. pair, drilled 32/40.



#### GIRO

— is a sprint rim for the massed start rider who insists on strength with lightness. Deep flat sides giving maximum braking surface on those long descents, this rim has exceptional strength due to the spoke holes having water-tight ferrules.



Weight 114 ozs. pair, drilled 28/32/36/40.

#### SCHEEREN

— is the sprint rim for the super lightweight enthusiast. Used by the current Road Champion of the World these rims have been proved in the severest race conditions. Manufactured from a light alloy of the greatest strength they incorporate the famous wood block inserts giving lightness and durability but also the same elasticity as with a wooden rim. The construction of these rims permits ample offset of the spoke holes near to the edge of the rim. This results in ease of build up and the wheel retains it's trueness without repeated tightening. The new "Raubett" dimpled bed prevents the dangerous roll off of the tyre. The tyre adhers to the rim extraordinarily well and is also prevented from wandering. These rims have exclusive five colour marking for the valve position enabling this to be found instantly.

The MILREMO "Scheeren" type rim is available in two models:-

#### RECORD

Weight 8½ ozs., drilled 32/36/40.

This is recommended for all road events.

# WELTMEISTER

Weight 7 ozs., drilled 28/32/40, or 24 to special order. This is recommended for track and time trial events.





provides you with perfection in foot comfort - so essential to contented cycling.

Whether you are racer or tourer you will appreciate the results in these products from the MILREMO design centre.

#### DEBUT 241 SHOE PLATES.

Made in an entirely new material for shoe plates—hard plastic, these plates are ultra light and hard wearing. Carefully shaped to fit the sole and with deep pedal slots.





**CHAMPION'** SHOE PLATES. Perfectly formed in ultra-light hard plastic, these Shoe Plates will outlast those made in alloy.

Look for these "CHAMPION" features:

\* Ultra Light Weight—only 1 oz, pair. \* One-piece construction in the popular extra long curved design giving full support to the instep. \* Two pedal slots giving an alternative foot position when hill climbing. \* Rustless and attractively

coloured finish of Red. White or Blue.

\*CAMPIONISSIMO\* TOECLIPS. The world's finest toeclip. Made in tempered steel, perfectly formed to avoid contact with the shoe toe and finished in superb chrome plating on copper base. Available in two sizes, medium and long.





\*COMPETIZIONE\* TOESTRAPS. A superlative toestrap in supple, wet-resisting chrome leather with non-slip non-rusting quick-release roller buckle. Available in Red. Royal Blue, Light Green, Yellow, Black, White, Light Blue, Bottle Green.

'CORSA' A new Italian-style Toestrap with special quick release buckle. In four colours this strap is wonderful value at its price.





**\*PULL-STOP\*** The handiest toestrap end button. Constructed in ultra-light plastic—weight negligible, this handy accessory is ideal for that quick pull and a sure safety stop on release. With special steel self-threading locking screw, available in three colours, Red, White or Blue.

REMEMBER — Sure feet are faster feet — Fit these MILREMO Specialities and feel the difference.



# TUBULAR RACING TYRES

have attained tremendous popularity in recent years. Manufactured by the finest tyre craftsmen in Europe from the best material available. There is a perfect MILREMO tyre for every purpose. In addition, MILREMO Tubulars are offered at prices which are unbeafable.

The range of 13 tyres is as follows:-

# Type TRAINING

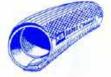
#### SPORTIVO

The finest value in 'tubs' made today. Tough black tread with fine centre ribs and file non-slip sides. Translucent walls. Weight 16 ozs.



#### CADETTI

Similar in design to Sportivo but weight only 114 ozs. Ideal racing tyre for the beginner or for general purpose.



# Type TRACK RACING

#### PISTE BLANC

Smooth tread, extra-light tyre. Weight only 54 oz.



#### PISTE CONTINENTAL

Matt tread tyre for use on hard, wet tracks. Weight 6 ozs.



# Type CYCLO CROSS

#### NORMAL CROSS

A special sturdy tyre for the Cyclo-Cross enthusiast, with rough file sides and raised V-cross centre section. Weight 13½ ozs.





# TUBULARS

# TYPE ROAD RACING



#### SPECIAL SPORT

A short distance road tyre with a file or multiribbed centre tread and translucent walls giving safety in all weather conditions. Weight 10 ozs.



#### CRITERIO LEGER

A super fast tyre with a matt tread. Ideal for pursuits and short distance road events. Weight 81 ozs.



#### CONTINENTAL

This tyre is fitted at special request with the famous German tread acknowledged by so many "aces" as the best. Smooth pattern suitable for all types of road events. Weight 84 ozs.



#### INVULNERABLE

The favourite for the road rider requiring a really reliable tyre, almost unpuncturable, with an all purpose safe tread. Light enough at 9 ozs, for the most important event.



#### LEGGERISSIMO

A tyre for the fast road rider with a multiribbed all-over tread in black. Handles perfectly over had surfaces. Weight 10 ozs.



#### SUPER RECORD

A fast, medium distance time trial tyre. Fine multi-ribbed tread. Weight 84 ozs.



#### SPECIALISSIMO

Extra fast road tyre with multi-ribbed tread, Weight 104 ozs.



#### RECORD

Super-fast extra-light road tyre with fine ribbed tread. Weight only 7 ozs.

All MILREMO Tubulars are backed with service in Great Britain.



If your local lightweight dealer is showing these attractive MILREMO display boxes you can be sure he is up to date with everything new in cycle accessories.



# 'RIPARO' TOOL KITS

to superb ultra light tools in specially treated hardened steel in a polished rustless finish, packed neatly in a plastic wallet size 44" x 34" x 1", weighing only 7 ozs,

The kit provides:

12 closed spanners in sizes of 6, 7, 8,

9, 10, 11, 12, 13,

14, 15mm, 1 chain-

wheel bolt spunner Zeom. doubleended box spanner, 8 x 9mm. 1 doublescrewdriver ended

I double-ended spoke nipple key. 3 tyre levers.
I hub and pedal open spanner. I hub cone I hub and pedal open spanner. I hub cone spanner. The whole kit can easily be carried spanner. in jersey pocket, musette or saddle bag and offers a complete roadside repair service.

#### PROTECTA' SPOKE DISC



The disc that perfect in every Weight way. lightest ever, only oz. Diameter At 43" it is exactly Material-plastic that right. Hard not rust or will bockle. Choice of 3 attractive colours. Red White or Blue.



# EXTRA' TUBULAR TYRE COVERS

superior article smooth black band, centre strong walls. cotton brans fastening hooks.

#### BADGES AND TRANSFERS

attractive 3-colour MILREMO Badge is available in several forms.

TRANSFERS, Small pattern suitable for rims, guards, etc. Long pattern for cycle frame down tube or chain stay.

METALLISED PLAQUES. large size these plaques are easily fitted to any metal surface.

#### Method of Fixing.

Be sure that the plate is clean, free of greaxe and dampness.
 Reactivate the adhesive file on the back with the aid of a soft bresh dipped in acetone. It is sufficient to wet it only once.
 Apply and press on with the hand or a cloth to assure a good contact:

the adherence is instantaneous.

# Special Sport

superb hand-made wired-on tyre. The finest British size 27 in. x 1 1/16 in. High Pressure ever High. constructed. Extra fast rubber tread.

over - weight only 11 oz. Tube weight 44 oz.



To ensure a perfect fit use only SPECIAL SPORT 11/16 in inner tubes with these covers. Use care at the first fitting to avoid damage to the wires-hand-made tyres are always a tight fit.

MILREMO quality. accessories help you to 1st past the post.





# SCHEEREN Light Metal Handlebars and Stems

Constructed in an extremely light metal which is as hard as steel and yet non-corrosive, these bars are guaranteed against breakage.





All types of SCHEEREN bars are fitted with a 25 mm. diameter ferrule giving extra strength and stability at the point where it is most needed.

SPORT 125 All Rounder type flat bars have dimensions of 23" x 1\frac{1}{4}" x 1\frac{1}{4}" and weigh only 7 ozs.

SCHEREN handlebar stems are made to comply with International Standards. They are not cast, but made of extremely hardened light metal of fine quality, unbreakable and rustproof. They are known throughout Europe for their outstanding high grade metal and durable chromium plated finish.

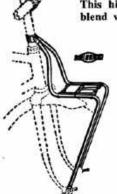
WELTMEISTER 151 World Champion reinforced girder pattern, weight 11 ozs. 3 lengths forward — 6, 7.5 and 9.5 cms. Stem length 155 mm.

WELTMEISTER 153 as above but with extra long 175 mm. stem, weight 11 ozs. 1 length forward only — 6 cms.



# CARRIERS in Light Metal by SCHEEREN

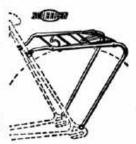
Made in two easily fitted models for front or rear in finest alloy. This high grade metal is in a polished neutral finish and will blend with any colour of frame enamel.



Model 203 Front attaches with a clip round handlebar stem and support stays to fork end guard eyes.

Model 201 Rear attaches with two clips to rear seat stays and supports to fork end guard eyes.

Both types are fitted with strong spring loaded parcel grip and weigh only 19 ozs. each.



SCHEEREN Light metal products are used everywhere

# CONTINENTAL

offer a range to suit every purpose. Manufactured in Germany, the home of high-speed motor-paced cycle racing, CONTINENTAL'S have established a reputation for safety, being used by specialists MEIFFRET and KRAMER for their World's paced speed records. Every type is fitted with an exclusive extra strong base tape.

#### TRACK RACING

WOOD TRACK (Holzbahn 180). A super light tyre weighing only 6 ozs., designed primarily for wood tracks, this tyre is the choice of the leading 6-day racers of Europe. Cold cured and with smooth black tread in size 27ins x 14in.

CEMENT TRACK (Zementhahm 230). A light 8 ozs. tyre for hard tracks or that under the hour "25." Black smooth tread, lightweight fabric, cold cured in 27in. x 14in.

NOTE.—CONTINENTAL pace following tubulars are available to special order. Sizes 24in, x 1\frac{1}{2} in. and 27in, x 1\frac{1}{2}in.

#### ROAD RACING

#### 265 (Strasse 265)

Intended for short distance events and massed start racing on good surfaces this tyre is the speedman's delight. Weight only 9 ozs, with a *smooth* black tread, lively walls and ultra light inner tube. Handsewn—outside cold cured size 27in. x 1/16in.

#### 285 (Strassen Reinreifen 285)

A light fast tyre for Championship events with a neat black ribbed tread. Light fabric walls, handsewn—outside cold cured. 10 ozs. only in weight, size 27in. x 11in.

#### 350 (Strassen Reinreifen 350)

The ideal stage race tyre with its tough black non-skid file pattern tread this 12 oz. tyre is suitable for all distances of time trials or massed start events. Handsewn—outside cold cured it is available in 27in. x 1½in.

#### 320 (Strassen Reinreifen 320)

Similar to the No. 1 but only 11 ozs, in weight.

#### TOURING

#### TOURING 530 (Tourreifen 530)

A really substantial tubular for all the year round use over all types of road. Steam cured, 27in, x 14in., the weight is 19 ozs., tread of sturdy black rubber in non-skid file pattern, walls fully covered in tough translucent rubber and finished with a strong rim tape. The ideal training and touring tyre for the rider who likes "sprints" all the time and economical too.













Remember CONTINENTALS have been used successfully by famous road and track aces in all parts of the world, including champions — Brian Robinson, Mueller, Kubler, Goldschmidt, Kramer, Meiffret, Plattner, Gillen, Strom, Arnold, Koblet, Thyssen, Ian Steel.

# Cycle Specialities from BELGIUM



Belgium's premier cycle fittings manufacturer offers these high quality products.

#### BRACKET FITTINGS

"SUPERLIGHT" set made in high resisting special steel. Hollow axle bored 11 mm. Special design ultra light lockring. Axle lengths 128 mm. for single and 134 mm. for double chainwheels. British standard dimensions only—weight 7 oz. set.



#### **HEAD FITTINGS**



Superb quality, strongly and expertly made in super hardened chrome steel in British standards. Weight 44 ozs.

### CYCLE SPANNERS

Made in Aluminum Bronze. Guaranteed quality with holes accurately calibered.



No. 676-SUPERB 8-hole suitable for Hub Nuts, Expander Bolts, Cotter Nuts, etc.



No. 675-SUPER 4-hole, light and strong, sure to appeal to the racing and clubman who remains faithful to hub track nuts.

# **SPIRAX**



Improve the appearance of your machine and protect the brake outer cable by the fitting of these attractive spirals of cellulose acetate. Available in duo colours of Red/White, Green/White, Yellow/White, Blue/ White they are supplied in lengths of 44" suitable for covering standard length front and rear brake cables.

# E.H.A.

The world's most modern cycle valve.

Easily replacing your present valve the E.H.A. will make tyre inflating the easiest of tasks, and at the same time give increased security.





From Italy there are always worthwhile new ideas for cycle fitments.

# VITTORIA OF TURIN

#### OFFER THESE EXCLUSIVE CYCLE ACCESSORIES

The first manufacturer to make a rubber brake lever hood. Two models are available in finest rubber.

- "Tour de France" the original all-round hood in translucent rubber giving a comfortable rest.
- "Giro d'Italia" (illustrated) the modern design made to fit most levers. White or translucent rubber.





"Stella" handlebar end caps with patented built-in shock absorbers. In finest translucent rubber these caps are the only type made to guarantee complete protection in case of accident. They are a "must" for every racing man.

Rubber brake lever sleeve in attractive translucent colour, hard wearing and attractive at an economy price.





Torch holder. Patented chrome plated clip that easily fastens to head tube, forks or handlebars and firmly grips a small torch. This very strong and carefully shaped article avoids the carrying of a cycle lamp.

# VITTORIA 'FULMINE' TUBULAR TYRE CARRIER

A neccessary accessory for every racingman.

Created in Italy and patented throughout the world the VITTORIA "Fulmine" consists of a light dural frame which clips across the two wires under the saddle.

Attached to one end are double bands made in a special rubber, stamped under pressure, and having exceptional strength and durability.

At the other end of the rubber bands is a finger loop and security hook which attaches to another hook at the opposite end of the frame thus securing the spare tubular tyre firmly to the underneath of the saddle, but at the same time keeping it readily accessible when required in an emergency.

- FIG. 1. Method of attaching the "Fulmine" to the saddle frame.
- FIG. 2. Spare tyre folded and ready to be held, finger and thumb gripping finger loop.
- FIG. 3. Security hooks contacted with tyre safely held.

NOTE. The "Fulmine" will also carry a cape or similar parcel.

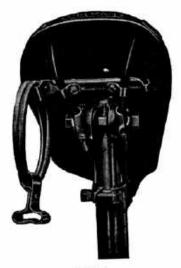


FIG. 1.





FIG. 3.

FIG. 2.



Italy's foremost cycle racing brakes.

Two models designed for racing and constructed in duralumin with a hightypolished finish.

#### Corsa 59 Brake

This is in the original side-pull design with these special features:

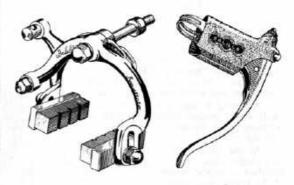
\* Weight only 19 ozs.

pair complete.

\* Lightweight stirrups in classic Italian form giving depth variations of 1½" to 2½" on the front and 2½" to 2½" on the rear.

\* Extra strong stirrup return spring operating against built-in non-slip

\* Special all white blocks in light alloy shoes.



# CORSA 61 BRAKE

The racing brake already adopted by the majority of Italy's premier racing teams. The neatest of centre-pull designs, with these additional features:

\* Two independently operated powerful return springs extended to give maximum leverage, the extensions being neatly located into grooves at the back of the Brake Shoe Arms.

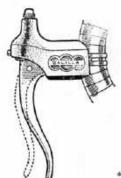
\* Brake Shoes are extra long and are curved to

follow the contour of the rim.

\* Brake Blocks are special Red non-slip studded

Stirrups are shallow front and deep rear additionally adjustable by reversing the centre pivot bolt in its location slot in the centre back plate which also prevents any back plate movement.

# **MODEL 62 LEVER**



The 'Corsa' 61 Brake is supplied with the new type 62 Lever, now improved by the closing of the inside edges of the lever for maximum comfort.

of the lever, for maximum comfort.

The famous BALILLA PATENTED QUICK RELEASE

The famous BALILLA PATENTED QUICK RELEASE consisting of a hinged centre piece to the front of the lever block, spring loaded and operated by a touch of a finger against the incorporated button. Centre piece thus moves outwards, allows lever to spring 1" up into block, opening brake stirrups. This gives ample clearance for a quick racing tyre change even before the muchine is halted. No need for re-adjustment, centre piece automatically springs back the first time the brake is used! This mechanism is neatly hidden by the hood—only the operating button is showing!

In addition the BALILLA lever, which can be supplied

\* Heavily knurled cable adjuster screwed into the lever block, giving no less than \{" variation in cable length. All-round lever hoods in thick long-last translucent rubber with Red and White BALILLA trade mark.

\* Strong lever clip 15" dia. with single fixing screw.

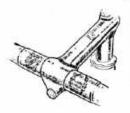
Buying the BALILLA brake means buying efficiency with economy. Full range of spares always available at reasonable prices.



The name that is world famous for handlebars and stems made in special light steel. Light in weight, perfectly finished in brilliant chrome plate they are ideal for the rider who prefers steel to dural.

# **HANDLEBARS**

For Track use - 2 models in heavy guage steel, For Road use - 7 models in lighter guage steel, 3 of which are attractively engraved if required on the ferrule



#### ROAD ENGRAVED

15 Tour of Britain 15½" 6½" 3½"

16 Campione Del Mondo

17D Giro D'Italia 15" 5\\ 4\)\"



	TR	ACK			
			Wide	Drop	Forward
N	14	Pista	15"	7"	51"
)	18	Madison	141"	64"	41"
	ROAD				
	11	San Remo	15"	61"	31"
	12	Gran Fon	15"	61"	
	13	Koblet	154"	7"	3"
)	15	Tour of I		1 6‡"	31"
	16	Campione	Del 15"	Mond 5½"	o 3≟"
	17	Corsa Stra	15"	6"	31″
	171	Giro D'	Italia 15‴	51"	41"



# STEMS

Cinelli stems are famous for their design and strength due to the extra wide clip. The same impeccable chrome finish as on the handlebars.

No. 1 ROAD - Standard type available in plain design, or with attractive CINELLI name badge on shield.

SIZES AVAILABLE

7 cms. — 2.11/16 in., 8 cms. —  $3\frac{1}{8}$  ins. 9 cms. —  $3\frac{1}{8}$  ins. 10 cms. —  $3\frac{1}{8}$  in., 11 cms. — 4.5/16 in., 12 cms. — 4.11/16., 13 cms. — 5.1/16 in., 14 cms. — 5.7/16 in.



No. 2 STAYER - Made for the rider requiring a fully adjustable stem. Slider has special knurled finish with maximum of 64" forward. Supplied only with CINELLI name badge.

No. 3 SACCHI - As No. 1 but with extension sloping steeply downwards.

SIZES AVAILABLE (Cms. length in brackets).

4.5/16 in., (11) 4.11/16 in., (12) 5.1/16 in., (13) 5.7/16 in., (14) SPARE PARTS ALWAYS AVAILABLE.

# Handlebar end caps.

Most attractive and very neat these plastic caps are easily fitted over the ends of the bars. Available in red, blue, grey or white they are offered at an economy price.





A New Name in gearing and one already assured of a great future. The GIAN ROBERT derailleur gearing is different and better!

Look for these special features:-

#### REAR GEAR

Improved wrap-round giving a much quicker change with less movement required on the control lever.



- ★ Popular deformable parallelogram design smaller and neater than other makes.
- Unobtrusive spring loaded adjustment screws allowing a full range of variation of speeds and sprocket sizes.
- \* Powerful return springs.
- \* New improved chrome finish.
- Ultra-light weight mechanism only weighs
   94 ozs.

# FRONT GEAR

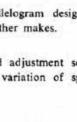
- ★ Clip and block in light rustless alloy.
- ★ Fully adjustable cage in chrome steel.
- Movement and return spring totally enclosed and weather protected by the alloy block.



- ★ The flat design gives maximum clearance for a nump and rear mudguard.
- ★ Ultra light-weight mechanism only weighs 4 ozs.

Front and Rear Ensembles complete with double down tube controls and complete with covered transmission weighs only 1 lb. 4½ ozs.

GIAN ROBERT gears are supported with COMPLETE SPARES SERVICE.



# UNICA - NITOR

THE WORLD'S MOST MODERN CYCLE SADDLE AND PILLAR.

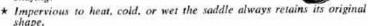
UNICA - the cycle accessory that is years ahead of its time.

UNICA - the world-famous Nylon-Plastic saddle that is veritably unique.

UNICA - the accessory that is guaranteed to improve your performance.

UNICA - the ONLY saddle that can offer you all these "star" features :-

- \* The top is moulded to the saddle frame giving a clean and finished appearance.
- \* The modern curved back design without rivets, and short curved chamfered side prevent any chafing.



- No breaking-in required—the top provides a firm, comfortable seat without that springy feeling that absorbs pedalling power. Top is perforated for coolness.
- \* A choice of four fast colours—Black, Brown, Orange or Green—colours to add brightness to your bike.
- \* A weight saving of no less than 14 ozs. when compared with other saddles and pillar.

# UNICA Saddles are available as follows:-

Saddle complete with patented Model 1960 Unica micro-adjusting pillar:
The 1960 Unica pillar incorporates a cam operating in a horizontal slot (easily set with a spanner) guaranteeing not only exacting angle adjustment but ample forward or backward movement, too. Weight

of saddle and 1960 pillar complete 22 ozs.

Saddle Top in standard 2-wire model to fit Nitor 1963 pillar, Campag 1044 pillar, Ideale Speciale Competition clip or any standard 2-wire saddle clip. Weight of saddle top only, 12 ozs.

Nitor 1963 Pillar.

An entirely new inovation—a seat pin that is perfect in every way.

Look for these patented features:--

Total weight only 91 ozs.

Exact adjustment possible to any angle.

Maximum security obtainable by patented
plastic grips.

Adequate forward and backward move-

Horizontal locking bolts giving easier access.

#### IMPORTANT.

When ordering remember to state the following:-

Colour of saddle (choice of 4 colours).

 Size of saddle — Road 11" x 6" x 2" or Track model (Slightly narrower and more curved over back).

 Diameter of seat pin — 4 sizes available. British Nos. 3, 4 or 5, Continental 26, 2.

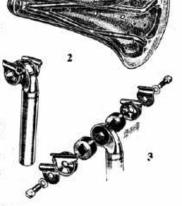
#### Also available :-

UNICA BAG LOOPS to fit any 2-wire saddle — neat, unseen and quickly detachable. Weight only ½ oz.

UNICA-NITOR . . .

Cycle accessories that are years ahead in design.









The Italian tyre hand-made by AMBROSIANA GOMMA, the worl's finest craftsmen—specialists exclusively in tubular tyre construction.

Not to be confused with mass-produced imitations. These tyres are the automatic choice of the World's Champions on Road, Track and Cyclo-Cross.

The range covers every requirement; the quality is perfect; presentation excellent, and most important, the prices are unbeatable.



# 17 SUPERB MODELS FOR SEASON 1963

Model

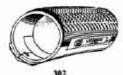
Weight Tread in Tread Pattern oz. Colour

Type — Road and Training — Semi vulcanised Rubber base tape.

200 VULCAN—New and unbeatable for value, Not to be compared with similar priced fully vulcanised tyres - Mixed 124 Black

201

201 GRANTURISIMO — The favourite training tyre. Like the VULCAN is fitted with strong rubber base tape - Mixed 13½ Black



302 SUPER SPORT-New-A superb allpurpose tyre at a price everyone can afford

- Mixed 10+ Black

401B COMPETIZIONE — The popular smooth extra fast competition tyre - Smooth 10 Black

401C COMPETIZIONE—Similar to 401B but with special hard black tread -- Matt 10 Black

401B

491R COMPETIZIONE — another fast short distance road tyre with red allribbed tread and translucent walls - Ribbed 10 Red



402 COMPETIZIONE — A sturdy all-purpose tyre now reduced in weight. Ideal for massed start or longer T.T.s Mixed 10 Black

Type — Cyclo-Cross/Grass Track — Cotton, hand made - Rubber base tape.

401C

802 SUPER CROSS-The only tyre with a non-slip tread that is ade at a real racing weight

Criss 10 Black









701

# TUBULARS (cont.)

Weight Tread in Tread Pattern oz. Colour Model Type - Road Racing Cotton, hand made - Rubber base tape. 0 TOUR de France - New - The perfect stage race tyre made in the best 600 TOUR de Mixed 10 Black hand-made tradition 600 601M GIRO d'ITALIA - New - Similar to 600 but with lighter ribbed tread, ideal for longer T.T.s -Ribbed 9 Black 602 CRITERIUM New A tyre certain to be a favourite with the massed start Mixed 81 Black 601M medium distance time trial tyre . fast Ribbed 81 Black Type - Road Racing Silk, hand made - Rubber base tape. 604 RECORD — New — As its name implies, this will certainly be the record tyre in 1963. Lightest possible treaded road tyre in finest silk -692 - Ribbed 6 Black IMPERFORABLE - New - The almost unpuncturable road tyre with extra hard rubber tread and exclusive - Ribbed 81 Black protection strip insert -602M Type — Track Racing Silk, hand made - Cotton base tape. 701 PISTARD-Using the exclusive ultralight Vittoria pocket, this tyre is the lightest in the world -Smooth 32-5 Black Type — Track Racing Silk, hand made - Cotton base tape. 604 702 PISTARD - A smooth band extra light tyre with attractive multi-coloured bands of red, white and green on black Smooth 5 Tricolour 703 PISTARD-New-With a matt tread, this is designed to fill the need for a tyre to be used on any wet, hard track Matt 51 Black 607

# ACCESSORIES

702

703

921 RIM CEMENT for ROAD 923 RIM CEMENT for TRACK 910 TUBULAR SEWING THREAD/NEEDLES 920 COMPLETE TUBULAR REPAIR KIT

VITTORIA means VICTORY—If you want racing success or just training reliability you can't afford not to buy VITTORIA. Remember, too—VITTORIA tubulars can be quickly serviced, your local dealer has only to return them to the Sole Concessionaire for Great Britain.



Cycle Accessories are for the rider who wants quality at economy prices. New in ideas — first rate in design — the best of materials — a combination that ensures success.

#### BAGGAGE STRAPS

Made in strong expanding rubber with easy fit metal clip join, these straps are available in two lengths and in all bright colours. 168/30 is 12" long.

168/50 is 20" long.

#### BELLS

220 "Din Din" Racing model.
Polished alloy dome. Single screw handle-bar clip in zinc plated steel.

221 as 220 but with ultra-light clip in white plastic.

#### BOTTLES

313 Plastic is the best value in full-sized bottles ever offered. With easy to grip ribbed sides it is fitted with a special double seal press-on cap that is holed for a drinking tube. When not in use the centre hole is closed with a neat hinged plug.

Available in attractive colours of White, Red, Yellow and Blue.

500 Bambino Bottle is small size to stit the Bambino cages.

#### BOTTLE CAGES

The Reg Cages are unbeatable for value. All models are fitted with a quick release, spring loaded grip.

162 Polished zinc strip — handlebar model.

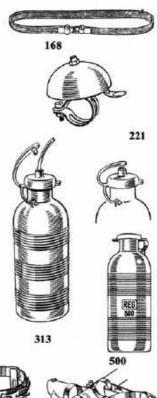
164 As above but for down tube. Both types are drilled for lightness.

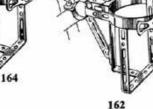
Bottle Cages in Strong Plastic in choice of 4 colours: Red, Blue, White or Yellow.

226 Bambino junior size for handlebar.

226T Bambino junior size for down tube.

230 Standard adult size for handlebar.231 Standard adult size for down tube.







#### BRAKE CABLE CLAMP BUFFER

350 An essential fitment to all brake inner wire ends to give full protection. Assorted colours in plastic.



#### BRAKE LEVER SLEEVES

351 Brake Lever Sleeves in coloured plastic. Red, White, Blue, Grey, Yellow, Green.



#### BRAKE CABLE CLAMP

749 Neat Double Clamp in plastic of assorted colours.



#### CABLE CLAMPS

Super chrome finish in the latest Italian style, these are available in 5 models.

these are available in 5 models.
751/25 (Diameter 1" for top tube) with cable

loop at top.

754/25 (Diameter 1" for top tube) with cable loop at side.

751/28 (Diameter 1½" for down tube) with cable loop at side.

752 (Diameter 4" for chainstay) with cable loop at top.

753 (Diameter 9/16" for chainstay) with cable loop at top.









#### CHAIN GUARD

1204 A neat Tourist pattern short polished alloy guard easily fitted with clips provided.

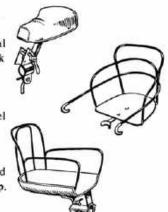


#### CHILD CARRIERS

33 Neat Junior mattress saddle on a universal clip that will fit either lady's or gent.'s cycle. Quick lever locking action for easy detachability.

248 Standard child carrier with frame in steel wire and seat of wood. Adjustable.

247 Strongly constructed steel frame. Enamelled finish. Frame tube fitted with universal clip.



#### DYNAMO PULLEY COVERS

3003 Made in VINYL para plastic these easy-tofit caps will prevent pulley slipping in bad weather. Available in three sizes.



#### HANDLEBAR GRIPS

338 Standard plastic ‡" dia. grips avaliable in all colours.

348 Lightweight marbled plastic with finger grooves. Pale or dark horn.

#### HORNS

211 Comet Cycle Horn. Attractive metal and plastic horn attached to handlebars with a single screw steel clip. Available in all popular colours.

#### LAMP BRACKETS

362 Handlebar Lamp Bracket. Strong lightweight steel in non-rust finish this lamp bracket is on or off in a jiffy having a half clip held with easy turn thumb screw. Fitted with exclusive plastic liners to clip, thus preventing damage to the bar and at the same time ensuring a firm grip.

#### MIRRORS

Four extremely well made lightweight Mirrors at economy prices. Mirrors bevelled 2½ ins. diameter. 581 has mirror holder and clip in plastic in assorted colours.

58 has mirror back in polished alloy with clip and bolt in chrome steel.

582 New model 3" dia. round in white plastic with rim in fluorescent colours.

583 Similar to 582 but rectangular  $4\frac{1}{8}$ " x  $5\frac{1}{8}$ ". Both new models have pillar in ZP steel and clips in plastic.

#### PUMPS

The new REG pumps are constructed in a very durable hard plastic and they avoid the use of internal threads in the top of the barrel by the fitting of two slots into which locates small pegs in the top cap. This method successfully overcomes the stripping of the barrel threads so prevalent in plastic pumps. Best leather washer fitted.

13 Available in WHITE or BLACK in 16" lengths.
14 Available in BLACK or WHITE in 14\u00e4" lengths.

15A Available in WHITE or BLACK in 19" length.

15AR Similar to 15A but with 5 coloured plastic rings as hand grip.

All above are fitted with standard H.P. braided connection.

15 Racing — This is an entirely new design of pump. The end of the barrel fits into a plastic handle shaped to fit the fingers and into this handle is incorporated a racing adaptor, the whole unit being neat and workmanlike.

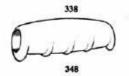
The pumps are in WHITE or BLACK with the handle in a contrasting colour.

BLACK with handle in either RED, YELLOW, GREY or BLUE.

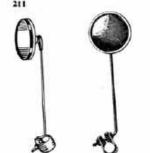
WHITE with handle in either RED, YELLOW, BLUE, BLACK or GREEN,

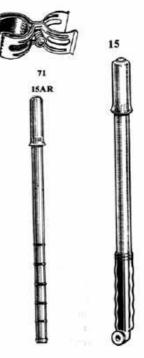
3 lengths available:  $1-16\frac{1}{4}$ "  $2-17\frac{1}{2}$ " 3-20".











#### PUMP HOLDERS

A range of pump holders for all purposes.

376 "ORTELLI" racing. Suitable for a pump with fitted adaptor. The domed top cup is drilled for lightness and is a positive stop, the lower clip has a holder for the pump adaptor, both being easy to fit when quickly replacing the pump. Chrome finish in 1" or 14" diameter.

376/S "ORTELLI" top cup only. For use with pump fitted with horn rests. This model is in super chrome finish and is fitted with wing screw.

71 Quick-fit holder. Double ended type, lined with dermoid for protection and tightened by spring loaded bolt. Chrome finish.

764 Strong and practical these standard type pump pegs are in rustless finish.

#### MASCOTS

249 Swallow. Body in ivory-white plastic. Wings in chrome-plated brass.

5026 Torpedo. Polished light alloy and plastic, red or ivory white.

5024 Lion. Polished light alloy.

405 Rocket. Propellor in chrome-plated brass. Body in plastic in assorted colours.

406 Twin Rocket. As 405 but with streamlined support in polished light alloy.

#### STABILISORS

502 Patented extended model in bright zinc-plated finish with universal fixing clip. For wheels 14", 16" or 18" diameter.

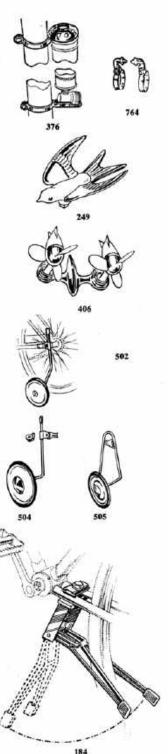
503 As above, but for wheels 18", 20" or 22" diameter.

504 For cycles with wheels from 14" to 22" diameter. Patented adjustment — main rod with bright zinc-plated clip. Large enamelled wheels 6 5/16" diameter — axled cap plated — Clip type fixing brackets.

505 As 504 but with new strengthened triangular frame.

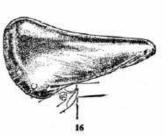
#### STANDS

184 Light Steel Cycle Central Prop Stand. Fitted with exceptionally strong return spring and frame fixing clip. Feet are plastic covered.



#### SADDLE COVER

16 Extra strong plastic with well stitched elastic edges. Give full protection and will fit all types of saddle.



#### SADDLE SUPPORT

Made in chrome steel, extra light in weight, the support clips round the top tube and is secured at the other end to the saddle nose. Exact tension is obtained by the expanding centre adjustment. Available in two lengths.

200 5".

300 61".



#### SPOKE DISC

67 In super chrome finish. Lightweight Spoke Protecting Disc, 4½" dia., suitable for all makes of hubs and derailleur gears.



67

#### TOECLIPS & TOESTRAPS

74 Chrome-plated carbon steel racing pattern toeclip.

73 Extra fine chrome leather Quick Release toestrap fitted with zinc-plated spring roller buckle.



73

#### TOOL BAGS

420 All plastic, in attractive colours of RED, BLUE, MAROON, WHITE OR BLACK.



420

#### THORN CATCHERS

252 Rigid pattern in chrome steel. Pits to brake centre bolt. The simple but effective catcher at the most economical price.



Article

Ref. No.

Description

#### 325 CYCLE OIL CAN

Small Thumb push model in plastic. 50 cc.



#### STREAMLINE CYCLE 12 HEADLAMP.

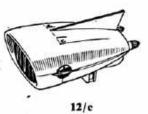
Plastic, suitable for dynamo and battery.



12

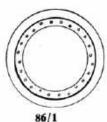
# 12/e STREAMLNE CYCLE HORN.

Red and white plastic, battery operated with push button.



SPORT-DISC. 86/1

> Fits racing chainwheels. Plastic in 3 colours, red, white or blue.



Article

Ref. No.

Description

#### 213 CYCLE MUDFLAP.

White plastic 7" x 8" with built-in reflectors.



#### 311 HIP FLASK.

White plastic, capacity 100 cc.



311

#### 274 HANDLEBAR GRIP STREAMERS

Plastic 10" long in assorted colours.



274

#### 102 HUB SHINERS.

For standard hubs in white plastic with reflectors.



102

# 3037 CYCLE FLAG STAFF.

Chrome plated steel - hub fitting.





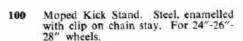
# MOTORISED ACCESSORIES

Made in first class materials in up-to-date designs these accessories are offered at unbeatable prices.

#### MOPED ACCESSORIES

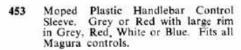
Article Ref. No.

> 59 Moped Handlebar Mirror. Rectangular with metal frame 2 5/32" x 4½". Pillar and clip chrome plated.



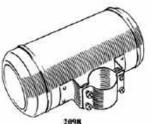


345 Moped Plastic Control Lever Sleeves. 7/16" x 429/94". Red, Grey, Black, Blue.





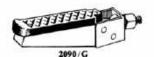
456 Moped Plastic Handlebar Control Sleeves. New model for Magura. White. Blue Grey, Yellow, Red, Green.



2098 Moped Steel Tool Box, 2½" x 6 5/16". Clips to frame horizontal or vertical. Red or Aluminium.



2062 Moped Pillion Footrests. Rear hub spindle fitting.



2090/G Moped Pillion Footrests. Enamelled steel with black plastic rest. Fixing bolt 11/32" x 1" or 11/32" x 12".

# REG CONTINUED

# MOTOR CYCLE & SCOOTER ACCESSORIES

#### Article Ref. No.

Handlebar End Mirror - Round with 468 patented fixing.



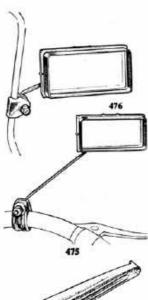
259 Motor Cycle Mirror. Frame in C.P. brass. Arm and clip chrome with universal adjustment.



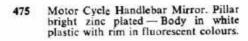
Motor Cycle Handlebar Mirror. 470 Pillar bright zinc plated — Body in white plastic with rim in fluorescent colours.

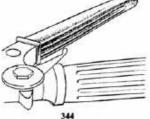


Scooter Mirror. Legshield attachment 472 with pillar in bright zinc plated. Body in white plastic with rim in assorted colours.

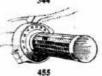


Scooter Mirror. As 472 above but with 3½" x 2½" rectangular mirror. 476





344 Motor Cycle Plastic Control Lever sleeves. Assorted colours.



Motor Cycle Plastic Handlebar Con-455 trol Sleeve. Grey or Red with large rim in Grey, Red, White or Blue.

# REG CONTINUED

# MOTOR CYCLE & SCOOTER ACCESSORIES (Cont)

Article Ref. No.

> 907 Klaxon Horn Button. Push button in C.P. brass with plastic clip lining.

3038 Motor Cycle Flag Staffs chrome.

Guard fitting.

fitting.

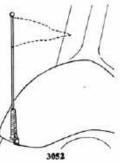
3039 As above Streamlined

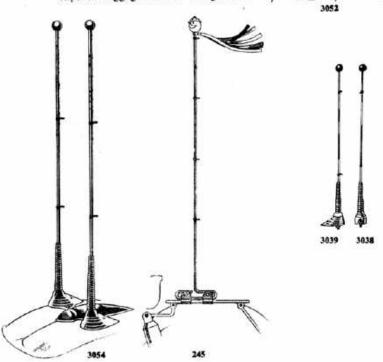
3055 As above Headlamp fitting.

3052 As above Guard fitting with screw,

3054 As above Double type with aerodynamic base on guard.

Scooter Pennant Flag Staff. Chrome steel with adjustable eyes for fixing 5 pennants. Crown with funny head with cap and streamers. Fixing by 2 clips on luggage carrier. Length 28".





# **REG** (Continued)

# MOTOR CYCLE & SCOOTER ACCESSORIES (Cont.)



#### Article Ref. No.

645 Lambretta Kickstarter Sleeve. LI Grey plastic.

653 As above

125D Grey plastic.



- 656 Lambretta Propstand Cover Sleeves. Black plastic.
- 642 Vespa Kickstarter Sleeve. Grey plastic. From 1958 onwards.
- 643 Vespa Brake Pedal Sleeve. Grey plastic. Up to 1958.
- 641 Vespa Kickstarter Sleeve, Grey plastic. Up to 1958.
- 647 Vespa Cable Set Covering. Grey plastic.
- Vespa Cable Set Covering. Grey plastic.
- 649 Vespa Propstand Cover Sleeve.
- 244 Scooter Plastic Luggage Carrier. Colour of frame — Grey, Blue, Red, Yellow, Ivory. Colour of net — Grey, Blue, Red, Yellow, Ivory.
- 114 Vespa Front Suspension Cover. Quick fitting. Polished aluminium.
- 115 Vespa Front Suspension Cover in C.P. brass.
- 214 Motor Cycle and Scooter Mudflaps. White plastic with "GB" registration letters and stop and pass emblems in colours.
- 2080 Motor Cycle Metal Licence Holder. Silver finish steel—Disc in translucent plastic — Attachment to head lamp bolt.







### REG CONTINUED

### MOTOR CYCLE & SCOOTER ACCESSORIES

Article Ref. No.

2090 Motor Cycle Footrests. Fixing bolts 11/32" x 19/32" or 1\frac{1}{2}" or 1\cdot -5/16" or 1" or 1\frac{1}{2}".

298 Control Cable Covers. Slip over and protect several outcasings. Length 50". Assorted colours.

168/30 Luggage Carrier Straps in rubber. Assorted colours. Length 12".

168/50 Luggage Carrier Straps in rubber. Length 19 11/16".



### MOTOR CAR ACCESSORIES

711 Twin Light Lamps in plated steel. Base plate plastic. Brass contact pins — Hood in Red, White or Yellow. For Vespa, Ape, Lambretta, etc., Motorised Tri-carriers.

713 Motor Roof Lamp for interior illumination. C.P. brass body, White glass.

260 Motor Mirror, wing fitting. Support in alloy. Oval with frame in C.P. brass.

261 Motor Mirror, wing fitting. Round with frame in C.P. steel.

712 Motor Twin Tail Lamp. Rear cum flash light. Body in C.P. brass. Glasses—White, Red, Yellow, Orange.



711

### SUNDRIES

964 Sun Glasses, Rhoidoid turtle style frame with translucent Yellow, Blue, Green and Brown lenses.

960 Plastic Folding Goggles. Lens: Transulent Yellow, Green or Brown.

962 Sun Glasses. New model Rhoidoid turtle style frame with sides in C.P. brass. Colours as 964.

963 Sports Goggles. Shield in hard plastic Chrome frame. Colours—Translucent, yellow and green.



963



### REG CONTINUED

### **TOOLS & WORKSHOP ARTICLES**

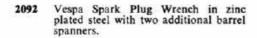
Article Ref. No.

633 Spark Plug Brush, all metal.

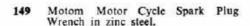
- 147 Plug Spanner. Zinc plated steel, handle in stout strip with 4 hexagon openings.
- 148 Plug Spanner in N.P. steel. Handle in stout wire.



- 2093 Plug Spanner, Lambretta. Hexagon steel tubing.
- 3008 Spark Plug Wrench in zinc plated steel. Best value.



- 2095 Lambretta LI 150 Spark Plug Wrench in zinc steel.
- 2096 Vespa GS Spark Plug Wrench in zinc plated steel.



- 2091/G Motor Cycle Tyre Levers, steel self colour. Set of 3.
- 271 Motor Cycle Chain Rivet Extractor. Zinc plated steel, interchangeable points.
- Plug Holder in translucent plastic, prevents damage to spare plug in tool kit.
- 20 Box Spanner Tool Kit (packed in plastic pouch).











26



# VAR WORKSHOP TOOLS

We are proud to be distributors of V.A.R. tools and unquestionably this firm's products are unrivalled in design, quality of materials and range. There is a V.A.R. tool for every need. Due to shortage of space we are able to list only part of their tremendous tool range, so if the tool you require is not listed here please ask us—it will almost certainly be available.

### Ref. No.

### Description

### Freewheel and Sprocket Removers and Tools.

- 01 "UNIVERSAL MONOBLOC" freewheel remover. For 1, 3, 4 or 5 speeds on axles of 9.5 - 10 - 11 on ordinary or quick release hubs. Fitted interchangeable dogs
- 04 "RATIONEL." sprocket removing tool. Utilised with 03 vice enables rapid changing of sprockets without damage
- 12 "ENERGIC" freewheel jig. Fits in a vice and opens up in the interior of the freewheel so permitting easy repair
- 186 "SPECIAL" freewheel remover for "MILREMO-SUPREMO - DUBAN - PRIOR" freewheels. Made in specially treated steel
- 186Bis "COURSE" freewheel remover for "MILREMO-SUPREMO - DUBAN - PRIOR" freewheels when fitted to quick release hubs. Treated steel
- 187 "STANDARD" freewheel remover. Treated steel
- 188 "SPECIAL" freewheel remover for 4 and 5 speed "MOYNE - REGINA" freewheels. Specially treated steel
- 210 "AMATEUR" freewheel vice. Sliding grips made in special bronze aluminium to be used in a vice

### Reamers

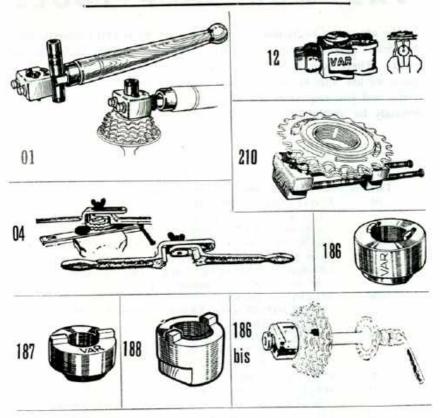
### Special Spanners

- 32 "HEAD AND BRACKET REAMER" Patented design with No. 2 and 3 cutters
- 33 "FORK CROWN REAMER" Pressure by ring and spring. Supplied with reversible cutter in normal, juvenile or tandem size
- 18Bis "PEDAL SPANNER" Double ended, zinc plated in chrome molybdenum steel, with very thin polished ends
- 23 "T-SHAPED" chainwheel pin spanner. Chrome molybdenum steel in sizes 6 and 7 mm. square and 7, 8, 9, 10, 11, 12, 13 or 14 hexagon .... Square Hexagon
- 65 "MULTIPANS" head locknut spanner. Chrome molybdenum steel 6 or 8 sided x 32

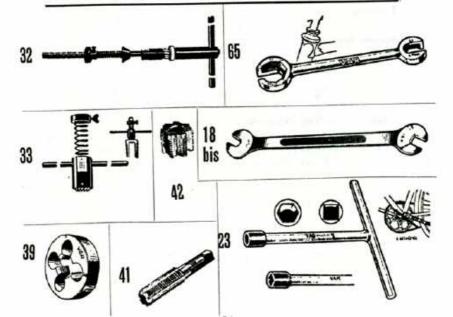
### Taps and Dies

- 39 "FORK DIE" Cast steel 1 x 24
- 41 "CRANK TAP" Cast steel 9/16 x 20. Set of 2 (LH & RH)
- 42 "BRACKET TAP" Cast steel. Set of 2 (RH & LH) 34, 85 x 24

## Freewheel Removers and Tools



# Reamers, Special Spanners, Taps and Dies

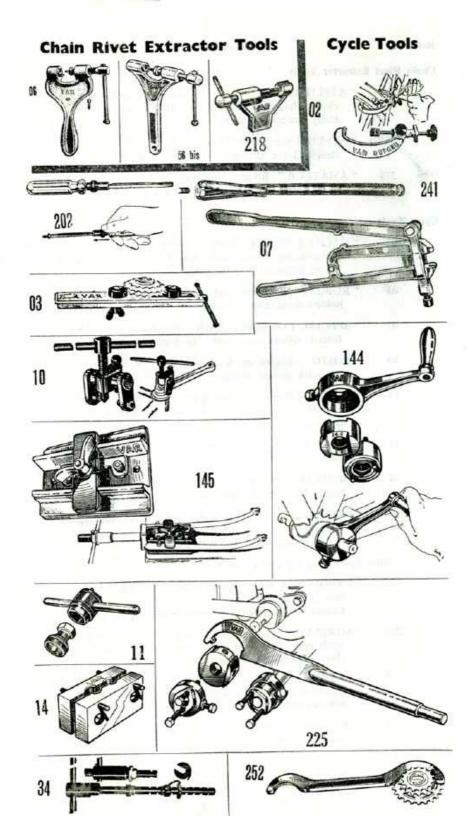


### Chain Rivet Extractor Tools

- "ATELIER VELO" Workshop tool for 1 and 3/32 cycle chains. Register fitted with special chain guide. Punches easily interchangeable
- 56Bis "ATELIER CYCLE-MOTO" Similiar to 06 but in forged steel and for chains size 3/16 and larger
- 218 "AMATEUR" Bronze aluminum with screw punch in treated steel. Indispensable for use on the road

### Cycle Tools

- 02 "CALIPER BRAKE SHOE CLAMP" The third hand indispensable for gripping the brake shoes in position during adjustment of the cable
- "ROBUST" freewheel and chainwheel vice. Adjustable holders made in special alloy to avoid damage to the teeth
- "SPECIAL CONSTRUCTEUR" cotter pin press. Reinforced, robust and rapid. In high resistance steel
- 10 "COSTO" cottered crank drawing tool. Reinforced studs on quick release stirrups assuring strong extraction
- "STRONGLIGHT" combined tool set. Permits the extraction of the cotterless crank, locks the axle screw and tightens dust cap
- 14 "SERRAX" hub axle vice. Indispensable for holding firmly all sizes of axles from 7 to 14 without damaging threads
- 34 "HEAD CUP PRESS TOOL" for correct setting of head cups. Ultra rapid adjustment by patented system
- "PRESTO" cup screwing tool. Very handy for rapidly screwing-on bracket adjusting cups. Indispensable for the assembler. Supplied with 2 jaws
- 144Bis Spare jaws for above (All types available)
- 145 "TIGRE" fork vice. Indispensable for holding the fork firmly, permitting every kind of operation to be executed. Enamel is protected by rubber. Suitable all sizes
- 202 "AGRIP-VIS" screwdriver. Firmly holds a screw at the blade end allowing it to be fitted or removed from a place inaccessible to the hand. Insulated handle
- 225 "HERCULE" cycle bracket fixed cup locking tool. Enables relocking of an unloosened bracket fixed cup in three minutes without having to dismantle the bracket set
- 252 "COURSE" sprocket remover. Range 12 to 28 teeth. Very handy for unlocking fixed cogs and freewheel spockets
- 241 "PINCE-ECROU" nut gripping tool. Small and very, useful, enables any size nut from 3 to 10 mm. dia. to be held, screwed or unscrewed in any inaccessible place. All nickel steel



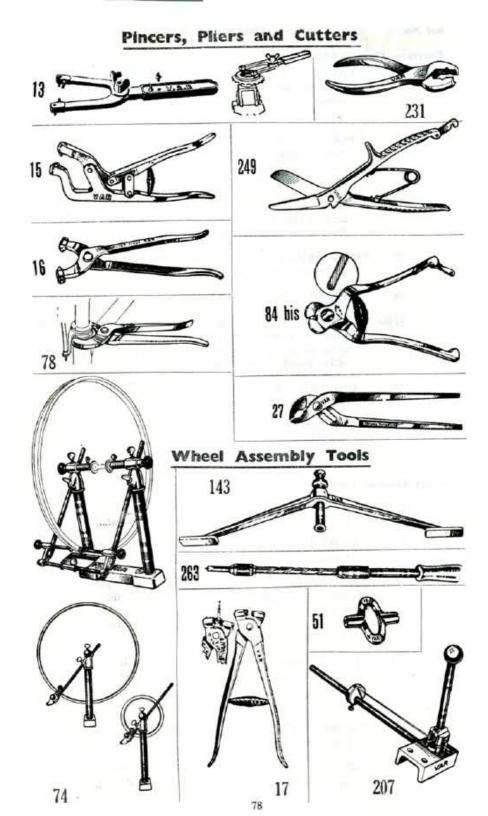
### Description

### Pincers - Pliers - Cutters

- "CAIMAN" pincer pin spanner for adjusting all locking rings, washers, dust caps, freewheel locking plates with round recesses. Fitted interchangeable cylindrical pins with double positions
- 15 "PERFO" pincer mudguard punch. Useful for quickly punching holes in mudguards for reflectors, stay eyebolts etc. Delivered with 5mm. punch and register but also available for sizes 2, 3 and 4 mm.
- "DOGUE" pliers for locking and unlocking with one hand head or bracket lockrings. Replaceable tempered pegs, locks in two different positions
- 27 "MULTIPRISES" gland nut pliers. All chrome superior quality in vanadium steel
- 78 "PYTHON" pliers for top head race adjustment
- 84Bis "COUPE CABLES" wire cutters. Fitted with patented triangularly working jaws allowing a clean cutting of any cable without flattening or fraying. Made entirely of nickel plated specially hardened steel
- 231 "UNIVERSELLE" nut pliers. Very handy for locking all nuts. Grips at the extremity or on the sides
- 249 "CROCODILE" shears. Fitted with special jaws for cutting cartons, rubber, etc.

### Wheel Assembly Tools

- 17 "COUPE-RAS" spoke head cutter. Will trim off spoke heads to the level of the nipple head. Replaceable studs
- 51 "PROFESSIONELLE" spoke nipple key. Drop forged, machined grooves for choice of three sizes of nipples
- 74 "ATOMIC" wheel trueing stand. A new patented apparatus, unique in its design permitting even the novice to centre wheels of all sizes and types rapidly and with precision. Delivered with centering points for both solid and hollow hub axles
- 143 "EXACT" wheel centering gauge. Indispensable for controlling the building of a wheel. Enables the wheel to be centred exactly. Instant setting, one hand only required. For use on rims of all types and diameters
- 207 "SPOKE CUTTING TOOL" Cuts spokes easily to exact length before threading
- 263 "SPEED" spoke screwdriver. Special ratchet enables ultra rapid tightening. Fitted interchangeable blade



# NEW VAR TOOLS

### Freewheel and Sprocket Removers and Tools

- 365 "INTEGRAL" freewheel vice. The first tool which permits the unscrewing of all sprockets from any multiple freewheel. This new vice, thanks to a patented system of holding the freewheel, allows the unscrewing of the last two sprockets on any freewheel. A definite solution also to a never before solved problem of easy dismantling of the freewheel internals. All steel, very robust, with interchangeable treated steel studs.
- 368 "CARCAN" freewheel vice. Indispensable for unscrewing the last sprocket from the body of MILREMO — ATOM — REGINA — MOYNE freewheels. All steel Protects internally the freewheel threads.
- 266 "RATIONAL" sprocket remover. Enables the unscrewing of fixed cogs, assuring at the same time absolute protection of the teeth thanks to the total wrap round of the chain. Supplied either with ½ x ½ or 3/32 chain.

### Special Spanners

- 95 "ALLEN KEY" Treated steel, all sizes available.
- 20 "HUB CONE SPANNER" Chrome molybdenum steel with extra flat heads, Delivered in set of 3 (13/14 — 15/16 — 17/18) or singly.
- 238 "AMATEUR" socket spanner set. Treated steel: 3 sets available.
   No. 1 Wood handle and 7 sockets.

   (1 in 7 mm square and 6 hexagon in 7, 8, 9, 10, 12 and 14 mm)
   No. 2 Metal handle and 7 sockets.
   No. 3 Both handles and 7 sockets.

### Cycle Tools

- 30 "EFFICIENT 61" Bracket cup fitting and removing tool.
- 63 "MONTEUR" Cotter pin mallet. Specially made for fitting and removing crank cotters without damage. Adopted by all cycle assemblers. Special indestructable copper head in square section. Handle supple and robust.
- 146 "ROCKET" Fork crown race assembling tool. Operated by hand with a sharp blow down the fork column. Interchangeable brass ring fits the section of the cone of the fork.
- 22 "PROFESSIONNEL" cotterless BB axle combined tool set for race mechanics. Comprises 3 tools in nickel chrome steel.

22/1 Tool and Tommy bar with studs.

22/2 Crank extractor.

22/3 Special tap for clearing internal threads.

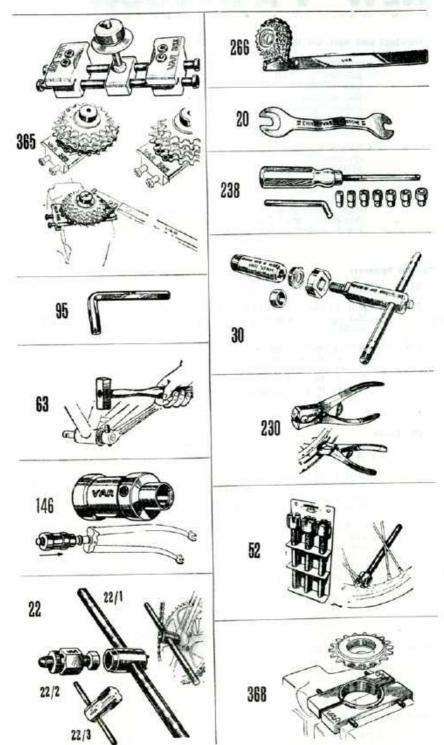
### Pincers - Pliers - Cutters

230 "MOTO" Motor Cycle spoke head cutter. 6 mm cutters fit into well of the rim.

### Wheel Assembly Tools

52 "PROFESSIONNEL" Spoke nipple keys, set of 3 for motor cycle.

# NEW VAR TOOLS



# DISTRIBUTION

HARROGATE is ideally situated for a rapid distribution service.

Freedom from congestion suffered by London and the large industrial centres, Harrogate's close proximity to the A1 North-South motor road and its position on the main railway lines from London to Scotland, Newcastle via Leeds, Bradford, Manchester to Liverpool, ensures prompter clearance and delivery to all parts of Great Britain. Compare these distances by road and see how our claim is justified.

LANDS END	400	miles	South
JOHN O' GROATS	400	***	North
LONDON	200	27	South
EDINBURGH	200	- 11	North
EAST COAST	60	99	East
WEST COAST	60	***	West

Imports are effected weekly from the Continent through the nearby quick clearance ports of HULL and GOOLE.

Exports are made using the above ports in addition to Liverpool and London.



### BRITISH REGISTERED TRADE MARKS

In order give complete protection and fuller guarantee certain Trade Marks have been registered in Great Britain and these are under our complete control.



A rapidly-increasing range of quality cycling products made in the finest factories of Europe to our special design and offered at the most competitive, controlled prices, backed by our First Class Spares Service and Guarantee.

MILREMO is also registered on our behalf in many overseas countries, including the British Commonwealth.



First introduced to Great Britain from PARIS by us in 1949 these articles represent a quality and design that is unsurpassed.



Another of our introductions, these products are offered at prices which are unbeatable for value.



A range of cycle pumps that are ahead in design and quality.

# GEAR TABLE

			_														Ī
12	1	=	1	10	1	9	1	*	1	7	1	2	Sprocket	Wheel	NO SERVICE	Chain	
¥	23	tt	22	世	2	=	77	35	Œ	×	5	13	-8	Stre	*	7	
412	43.0	80	42.1	49.4	52.0	58.9	1.88	61.8	65.9	NOT.	26.0	82.4		26"	38	-	ĺ
41.8	45.6	46.6	48.9	CHS	34.0	57.0	6003	68.7	68.4	73.5	28.9	85.5		77"			9
\$3	45.2	47.3	49.5	52,0	387	\$1.8	61.2	65.0	693	743	OCO.	86.7		26"	8	20	
45.0	47.0	49.1	31.4	54.0	8.8	60.0	63.5	67.5	72.0	17.77	1.08	90.0		27"			
t	47.5	49.6	32.0	54.6	57.5	60.6	642	68.3	72.8	78.0	84.0	910		26"	h	21	
tu	49,3	SLS	Ä	86.7	39.7	63.0	66.7	70.9	75,6	0.18	877.2	94.5		27"			
47.7	49.8	52.0	545	37.2	60.2	63.6	67.3	713	76.0	H.T	28.0	556	, st	38"	2	#	
49.5	978	54.0	988	20%	62.5	0.68	69.9	74.3	79.2	84.9	91.4	99.0		142			1
49.7	8105	53/2	55.5	38.5	61.6	65.0	6.83	79.1	78.0	83.5	0.00	97.5		26"	4	1	
906	12 H	552	5738	60.7	64.0	69.0	71.5	75.9	81:0	86.8	93.4	101.2		4		H	
49.9	32.0	944	97/0	59.8	629	06.4	70.4	74.6	79.7	85.4	92.0	99.7		360	48	23	
8.15	54.0	56.5	1393	62.1	65.4	69.0	73.1	277.0	82.8	811.7	536	103.5		Ŧ	0		1
50.9	1166	35.5	68.2	61.1	64.3	67.9	3109	76.4	87.5	17.3	94.0	101.8		76"	47	1	
613	5512	57.6	60.4	63.4	66.8	70,5	74.5	79.3	14.6	90.6	97.6	1057		77	1		
52.0	81	96.7	59.4	62	65.7	6.60	73.4	D.87	80.2	89.1	96.0	040		8	4	24	
940	56.3	58.9	61.7	848	68.2	72.0	762	0.18	86.4	91.6	99.7	0.808		77			
1.65	\$5,4	1615	80.6	61.7	67.0	70.7	74.9	31.07	678	0.16	98.0	94		26-	49	Ĭ	
1.65	57.5	1,09	6.53	862	8.69	73.5	77.8	10.7	88.2	2,00	F101	110.2		4			
54.2	56.5	99.1	619	65.0	68.4	77.2	3.35	6.18	86.7	92.9	0.001	108.3		26"	50	25	
636	3877	61.4	92	67.5	71.1	75.0	29.4	34.4	90.0	96,4	6.00	112.5		25*			
552	57.6	60.2	63.1	66.3	69-8	73.6	78.0	87.9	20.4	967	0.201	110.5		26"	- 51	1	
£77	9765	62.3	68.5	88.5	77.4	765	81.0	90.0	3.16	Calls Calls	6.500	114.7		27"			
E795	8.00	61.5	64.4	67.6	71.2	75.1	79.5	EAS.	1.06	98.6	0.00	112.7		267	12	26	
2115	61.0	63.8	66.9	70.2	75.9	78.0	82.6	87.8	93.6	100.3	ICIR.O	117,0	- 14	777	000		
57.4	39.9	62.6	65.6	6839	72.5	ř	81.0	1.88	31.8	98.4	0.301	114.8	E C	26"	55	1	
9.65	62.2	65.0	1.80	21.5	75.3	76.5	84.1	89.4	95.4	1022	0.011	119.3	g	27"			
Ě	61.0	813	8.83	20.2	73.9	28.0	ŧ	87.5	93.6	100.3	CTROS	117.0		26"	2	11	
60.7	63.6	66.2	69.4	72.9	7607	81.0	85.7	-F.16	972	19401	112.1	121.5		775			
59.5	62.1	65.0	68.0	\$1.5	28.2	79.4	84.1	89.3	953	102:1	0.011	1,611		76-	88	1	
61.0	200	67.5	70.7	24.5	ž	10.5	673	92.8	99.0	0.300	1142	12317		777	7	1	
600	633	68.1	69.3	72.8	76.6	80.8	9758	0.16	97.0	1040	112.0	121.3		26"			
8	63	6	7	35	79	2	2	94	100	108	=	8		77	8	H	



14 28 ¥

38.6 39.0 40.5 40.9

41.8 43.4: 42.7 44.4

45.6 45.3 44.6 46.3 45.5 47.2 46.4 48.2 47.3 49.8 48.3 50.1 49.2 51.1 50.1 52.0 51.0 52.0 54.0

25 39.5 41.0 41.6 43.2

43.7 45.4 45.8 47.5

38.0 35.3 36.6 37.1 40.0

415 att.

636 ŧ 45.7 62.4









Tandemists ....



and Tourists.

Any gear ratio not shown on this table can be calculated as . swollol Gear =

Diameter of rear wheel Number of teeth on Number of teeth on chain wheel sprocket