YOWL

THE JOURNAL OF THE
SCOTT OWNERS' CLUB

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EDITORIAL

This February issue heralds the introduction of a new cover for *Yowl*. The new design was suggested by George Stevens who thoughtfully made the block available, thus saving the Club some money ! Members will recognise the picture as that previously used on the latest Scott catalogues. I was particularly pleased to be able to feature the modern Scott on the new cover, if not quite for the first time. And to set the balance right Nick Sloan kindly arranged to have reproduced the period "Two Stroke" motif—actual size—from his 1914 catalogue. This appears on the rear. I hope members approve *Yowl's* new look.

Brian Woolley sent the contribution published in this issue accompanied with a short note. "Isn't it a tragedy" he says "that the Swift was never developed and we have to wait for a lot of monkey men to "show us the way ! " I asked about the 350 c.c. Racer and Brian reports—"The solitary reason the heat is off is the factory's moving, which has made work impossible." He is intending though to let us have a report on the present position and adds "Certain parties may take cheer from the fact that a water-cooled model will be out next season !

As a direct result of the "Ragbag" article by Dennis Howard in the August edition of *Yowl*, a letter was recently received from Mr. C. Hurst of Blyth, Northumberland, who explains that he is now the owner of the interesting Scott built by J.R.C. (Robin) Ord. Apparently, after extensive modifications the machine was re-registered as a "Scord." I'm hoping to obtain some more information rom Mr. Hurst and meanwhile shall be checking some references he gives. In due course the whole story will be told!

Another letter from John Hawkin deals with a comparatively "minor" matter. He points out quite correctly that there can surely be no question of "degrees" of uniqueness referring, of course, to the trophy recently presented by Glyn Chambers and awarded for "the most Unique Scott" to Mr Fisher, at the National Rally. He suggests an alternative but similar title. I'd go a little further and query if perhaps the capacity for creating a machine quite unlike any other is a talent to be applauded and one to merit a special prize from the Scott Owner's Club, thus encouraging a practice of doubtful value.

There's been mention in *Yowl* before of Les Langworthy's 1914 T.T. project. Apparently only four of these extraordinary machines "the last of Alfred Scott's racing motorcycles" were built and Tim Wood the previous year's winner, after breaking the lap record was put out of the race when in a leading position by magneto failure. Les is attempting to build a replica of the model from drawings and photographs using contemporary parts where possible I was able to supply a radiator. The reason I mention it here is due to a rumour that one of the originals has turned up in Holland ! Although according to George Stevens all four machines were returned to the works and subsequently dismantled. I'm told that a Mr Laming of Ijsselmonde, Rotterdam claims to have one amongst a collection of veteran machinery. I have recently written and am hoping for an encouraging reply and photograph. However, if any of our members are likely to be visiting Rotterdam during the year, I'd like to suggest that they take the opportunity of calling on Mr. Laming and learning the full story.

I've received a recent letter also from a regular *Yowl* contributor, Gerry Clifford, although I regret as I write I've still not been able to include Gerry on my Membership List. He promises a piece later in the year on his present Scott which he calls the "Backyard Special" but still needs a good photograph to accompany same. This machine, as any member who's seen and experienced it will know, could well occupy a full evening's examination and Gerry who seems to thrive on doing things the hard way, admits to removing, straightening and refitting frame tubes. The engine is "back to front" to the extent of being a shortstroke bottom end with a "Powerplus" block—Gerry machining eccentric bushes for both rods and piston bosses to correct for timing discrepancies.

Just in case they evoke the same response as Dennis's similar remarks, I'd like to quote Gerry, who recalls "Arthur Wheelhouse of Chesterfield who had a fantastic 2/speeder," and another character originally living near Grimsby who "had a Scott tuned by, of all people, Harold Daniel !" Does anyone have any further information on these machines ?

Finally, I've been asked by Robert Rawlins to include a note about the Worthing Historic Commercial Vehicle Group who now cater apparently for *all* old vehicle enthusiasts and they have social meetings on the first Friday of each month. Any South-Eastern S.O.C. members will be welcome. The meetings are held at "Candia" 25, Farncombe Road, Worthing.

All the best,

GEOFF.

SCOTT ENGINE IDENTIFICATION

The following data is reproduced from one of the Scott Owner's Club Information Sheets. These were prepared and issued in the early days of the Club by the then Registrar, George Stevens. Supplies at the time, however, failed to satisfy the demand and it is considered that the information contained is sufficiently valuable to warrant re-printing for the benefit of those members not fortunate enough to have access to a copy of the original and a great deal more comprehensive.

An attempt has been made, however, to extract the most essential "gen" and will be continued in subsequent "Yowl" issues.

The following list gives basic details of all production Scotts from 1908 to the present day. (1958—*Ed.*).

To quote Tom Ward—"Scotts have always done their best to confuse everybody, which is why so many experts often wear a puzzled frown ! " Scott's manufacturing schedules have often been inconsistent and varied to suit availability of components. Detail changes were often made during a production run and not listed or described in the Press.

All the information is from catalogues of official factory releases. There are two hard and fast rules which do not vary.

1. Engine numbers were stamped concurrently in order of machine production, irrespective of model, as listed herein.

2. The factory always brought out new production models towards the end of a year *for the following year* ; e.g. the 1927 "New" Flying Squirrels were available in late 1926, after their introduction at that year's T.T. races. It may be taken as a rule that any Scott given a catalogue date would have been available at the end of the previous year. (This accounts for the never-listed 1928 "T.T. Replicas").

Duplex-framed Scotts are all based on the 1926 works' T.T. machines—right up to the last Shipley Scott. 1927 T.T. entries were very special and never reproduced for sale. They were fitted with the straight back crankcase set well back in the frame—the long wheelbase one. 1928 T.T. machines were powered by the first of the long-stroke engines (71.4m.m.), retained even on today's machines. They were available as the first "Replicas" the following year.

The three 1930 T.T. machines—the only vertical Scotts made—were never raced and the ensuing 650 c.c. model made only in prototype form, as was the 750 "Three" and the Grand Prix Scott.

Scotts have used various prefixes and suffixes to identify their engines and exact dates of introduction or withdrawal cannot be given. One certain rule, however, is that all engine NUMBERS—irrespective of model—were stamped in sequence. The following are derived from official Scott records.

Engine numbers only were used until late 1924, when alphabetical prefixes were introduced as below. (Although some earlier engines had "SC" stamped with the number. This indicated that the block had been bored out for sidecar work).

S—Squirrel (70 x 63.5 m.m.—486 c.c.).
T—Standard Touring (73 x 63.5 m.m.—532 c.c.).
Y—Super Squirrel and Standard 596 c.c. models (74.6 x 68.25 m.m.—596 c.c.).
Z—Super Squirrels 498 c.c. (68.25 x 68.25 m.m.—498 c.c.).
FZ (68.25 x 68.25 m.m.—498 c.c.) and FY (74.6 x 68.25 m.m.—596 c.c.). used on the first Flying Squirrels (1926 two and three speed models).
TY (74.6 x 68.25—596 c.c.) introduced for 1926 Touring models and continued until 1928.

FZ—M (68.25 x 68.25 m.m.—498 c.c.).
FY—M (74.6 x 68.25 m.m.—596 c.c.). } "New" Flying Squirrels
FZ—A (68.25 x 68.25 m.m.—498 c.c.). } (Duplex frame, full crankcases).
FY—A (74.6 x 68.25 m.m.—596 c.c.

In 1927, as numbers approached five figures, the suffix "M" was added—up to at least FZ 10096M. Numbers were started—at about the middle of 1927—at some low figure again. Suffix "M" was replaced by "A" towards the end of the year and this was used until mid-1931—but not on replicas.

RZ (66.6 x 71.4 m.m.—498 c.c.). } T.T. replicas.
RY (73.02 x 71.4 m.m.—596 c.c.). } 1929 only.
PZ (66.6 x 71.4 m.m.—498 c.c.). } "Powerplus" replica engines 1930-32.
PY (73.02 x 71.4 m.m.—596 c.c.). }
FZ or FY (No suffix) are late shortstroke motors.
LFZ (66.6 x 71.4 m.m.—498 c.c.). "Longstroke" Flyers—last of the
LFY (73.02 x 71.4 m.m.—596 c.c.). "blind head engines."
DPZ (66.6 x 71.4 m.m.—498 c.c.) Detachable cyl. head replica
DPY (73.02 x 71.4 m.m.—596 c.c.). motors.
GPZ (66.6 x 71.4 m.m.—498 c.c.). "Grand Prix" motors—not many
GPY (73.02 x 71.4 m.m.—596 c.c.). produced.

Included for the sake of completeness are the prefixes X and V and the suffix CS. These are single 300 c.c., vertical 650 c.c. (not produced) and Clubman's Special respectively. Three cylinder engines were coded 3S.
Works twins had various letters (SP, M. EXP, etc.).

BIRMINGHAM SCOTTS

Between 1951 and 1956, Matt Holder made several prototypes. From 1957 to the present time the familiar swinging-arm models have been produced. The more recent machines are fitted with Miller A.C. electrics instead of Lucas D.C. equipment.
Those prefixed DPY are built from Shipley-made engines assembled by Harry Langman. (5427 onwards).

DMS } Motors built by Aerco Jig and Tools Ltd., 1956 onwards.
MDH }
The numbers of Birmingham engines do not run in sequence.

1908(late). First production Scott. Finned air-cooled barrels and deeply-finned aluminium water-cooled cylinder heads. Finned riser pipe to radiator header tank, which was tubular and separate from the flattened tube radiator. U-shape water return pipe. Cylindrical petrol tank concentric on saddle tube and cut away to clear magneto. Horseshoe, cycle type rear brake on tyre rim. Oil filler cap central on down tube behind steering head. Light type gears. Separate bolt-on exhaust manifold.
1910 As above, but considerably cleaned up. Tank mounted forward-of-centre on saddle tube and not cut away. Rear brake inside chain sprocket.
1911 Waisted water-cooled cylinder barrels and water-cooled heads. Normal type of radiator with square section holes and 4-bolt fixing. Oil filler cap offset to left of steering head on down tube.
1912 Again considerably cleaned up. Less pronounced waists to cylinder

barrels. Crankcase door straps in line with cylinders and not vertical as formerly. Legshields supplied as standard equipment. Larger tank of familiar oval shape used. A conventional guard was fitted over the rear chain in place of the peculiar and quite indescribable fitting previously used.

All the above had petrol tanks embellished by two wide horizontal silver bars. They used the light type gear with two-piece hub and light chains. No part of this gear is interchangeable with later types. Engine had separate bolt-on exhaust manifold and all had water-cooled heads.

1913 A completely new design, using an engine with water-cooled cylinder barrels and air-cooled heads. Larger engine bearings were incorporated. Covers over exhaust ports and single exhaust outlet integral with cylinder casting. Heavier type 2/speed gear with single piece hub. Heavier chains throughout. Guards fitted over gear unit. Heavier frame. Oil filler on extension of the pillar carrying the "XL-all" saddle. A small additional silencer was fitted to the end of the exhaust pipe.
This machine was the type which was basically unchanged for the next ten years.
All Scotts up to and including 1914 had Scott carburettors ; all had roller-type forks, the rollers acting as bearings for the sliding unit of the spring forks, where this passed through the fork ends.
Early post-war Scotts were very little different from the pre-war types ; major points of recognition are : forks with telescopic guides instead of rollers, British (or American) magnetos in place of Bosch instruments, use of a proprietory carburettor, fitted to an induction stub held in place by a bracket on the down tube, and honeycomb radiators. Twin horizontal drip feeds were fitted in place of the single type previously used. 1921 series machines had twin Best & Lloyd drip feeds, but these could be fitted to earlier machines and many sets were supplied for this purpose.
1922 This season saw the first important introductions since 1913. The famous Squirrel was a sports machine of 486 c.c. A redesigned frame was used and footrests replaced the footboards, whilst an undershield was used and legshields omitted. Mudguarding was of the sports type and there was no carrier. The characteristic straight sports Squirrel bars were first used on this machine. The engine had a redesigned crankcase and cylinder fixing. Cylinders had water-cooled barrels with uncooled heads. Plugs, which had hitherto been in the rear wall of the cylinder on production types, were in the cylinder heads on the induction side. Oil was still carried in the frame and lubrication was by suction, the drip feed being mounted half-way up the down tube from the steering head. Modified forks were used. Rear wheel was as fitted to earlier machines.
1923 5 in. Webb front brake used in place of cycle pattern. The first 3/speed machine was listed for 1923, this being a standard type with 532 c.c. engine. Engine and gearbox were mounted on a substantial aluminium tray bolted into the frame. This gearbox was not a very satisfactory unit. Specification was otherwise similar to standard 2/speed machine : oil carried in frame, drip feeds as on Squirrel, legshields, footboards, "A"-shaped handlebars. Both brakes, however, were of the internal expanding type, that on the rear wheel in the chain sprocket.
1924 All machines of this date had internal expanding brakes on both wheels, which were carried on knock-out spindles. Bearings of the rear wheel were of the journal type. A separate oil tank was provided with two independent drip feeds, with a separate oil line to the gear, controlled by a tap. This type of oil supply was continued on the 486 c.c. Squirrel until it went out of production in 1927.
1925 The Super Squirrel was first listed for this year, being similar to the 1924 Squirrel, except for the engine. This had water-cooled cylinder heads with centrally placed plugs. A new design of bolt-on induction stub was used, carrying a 1 in. choke Amac carburetter. 1925 Super Squirrels had smaller

exhaust outlet pipes than later machines. Bore and stroke were : 68.5 x 68.5 m.m. (498 c.c.) or 73.5 x 68.5 m.m. (596 c.c.) Drawbolt adjusters were fitted on the frame behind the 2/speed gear mounting. A 3/speed Super Squirrel was also marketed. Tyre sizes were increased to 700 x 80.

1926 Super Squirrels had larger exhaust outlet pipes. All machines except Squirrel had Best & Lloyd mechanical pumps on off-side crankcase door, feeding to a Y-shaped distributor on the down tube. These engines cannot be converted to suction oiling unless the glands are changed. Both 2/speed and 3/speed standard touring machines were also built during this period, these being externally similar to the Super Squirrels except for touring type legshields, optional footboards and handlebars, larger rear sprockets and, in some cases, luggage carriers. Mudguarding, also, was more complete.

The first Flying Squirrels appeared in the 1926 catalogue, although they were a mid-season production of the previous year. Both 2/speed and 3/speed versions were made and were highly-tuned examples of the Super Squirrel, as far as the engine was concerned. B. & D. stabilisers and André steering-dampers were fitted. Petrol tanks were optional. Where the oval tank was used, this carried a large silver diamond transfer with red centre, over which a flying squirrel was superimposed. The alternative tank was of the combined petrol and oil type, similar in outline to the later Flyers. Earlier tanks were short and deep with concave sides ; later products had a long tank of very ugly shape, extending far back over the magneto and contained a hand pump for gear oiling. Filler caps were one behind the other. Early Flyer tanks had smaller oil filler in front ; later types had equal size fillers, oil at rear. Where separate oil tanks were fitted to 2/speed standards, Supers and Flyers, these had. modified outlets and had a hand pump for gear oiling.

Late 1926 Flyers had wide big-end bearing engines with modified crankcases

1927 Wider big-end bearings (3/8 in. x 3/8 in.) replaced the 3/8 in. x 1/4 in. rollers previously fitted to Super Squirrels.

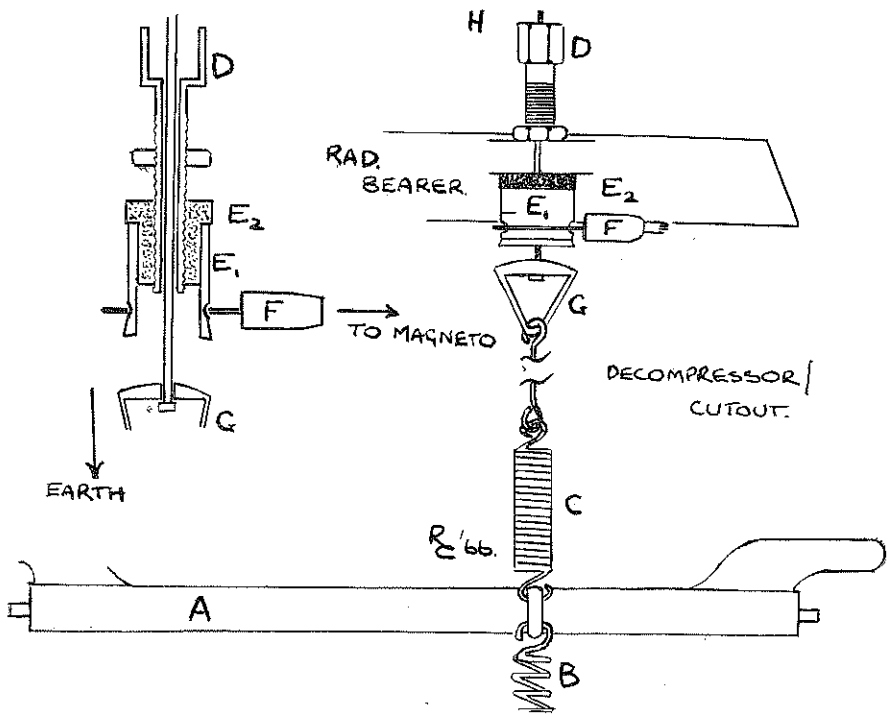
Hooks 1-1/8 in. choke carburettor fitted on larger induction pipe. Oil pump was mounted on magneto platform. Earlier 1927 machines had Best & Lloyd pumps. Later types had Pilgrim pumps and suction glands. Wider forks (7 in.) in place of 5in. type ; deeply valanced front guard. Similar modifications on 3/speed Super Squirrel and Standard touring types. Last year of Squirrel 486 c.c., which was unchanged.

1928 Last year of the 3/speed Super Squirrel, which is distinguishable by gate change for gears in place of long lever on gearbox.

1929 Wired-on tyres fitted to Supers. Modified undershield fixing by one central bolt. Sports Squirrel introduced ; this was merely a Super Squirrel with a tank reminiscent early Flyers, with two filler caps of equal size instead of the smaller oil tank cap on the Flyers. A bead round the edge of the top surface of the tank also distinguishing this type from the 2/speed Flyer. Brakes were 7 in. diameter front and rear on Sports Squirrel (5 in. on Super), but this was too powerful for the fork design.

1930 Cut-down frame on both Super and Sports Squirrels. This necessitated shorter petrol tank of 2-gallon capacity on Super. Adjustable handlebars fitted. Shorter forks to suit frame. Fourth point fixing on front of crankcase. Sidecar lug omitted from steering head. Armoured leather toolbag on offside chain stay in place of triangular toolbox used 1923-29. Front brake of 6 in. diameter.

Two sound 596 c.c. Scotts in bits, offers, or exchange parts for working Russell bitch.—Recent E. & M. advertisement.



VINTAGE "FLYER" DECOMPRESSOR/CUTOUT ASSEMBLY

by *Bob Cordon-Champ*

Cable H from the handlebar lever, when pulled, actuates the decompressors through the bar A, stretching the weak tension spring B, which is attached to a thin triangular-shaped plate held by the centre "sleeve" nut of the exhaust system. When these reach the limit of their travel, (position shown in the drawing) if the pull on the lever is continued, the strong spring C stretches, allowing the metal cable achorage G to contact the metal base E_1 of the adjuster D, this being insulated from the cable H by the plastic block E_2 into which it screws but connected to the magneto by the lead F.

Earthing of the magneto thus takes place through the spring C.

BON VOYAGE!

Joan and "Lofty" Avis, founder members and original committee members, loyal supporters of the S.O.C. since its inception and furthermore Scott *riders* throughout, announce they'll be leaving for Montreal mid-February. They wish all their friends they've made through the club a farewell. Their new address will be published (it is hoped) in the April *Yowl* and they'll be pleased to hear from members, Lofty intends to stay on as Technical Correspondent. "Bon Voyage" L. & J !

ROADSIDE REPAIRS

by *Bob Thompson*

About twelve or thirteen years ago I was riding my 1938 Flying Squirrel over to see some friends. As I slowed down approaching an intersection the motor cut out, not an unusual occurence. However, on trying to restart I found that the motor would not turn over and there was an ominous "clanking" sound coming from the nearside crankcase. I removed the crankcase door and my fears were confirmed, the big end was blue, due apparently to a lubrication failure on that side.

I was in a quandary as to what to do. In those days the Scott was my only means of transport and I relied on it heavily. At the side of the road I removed the radiator and cylinder block. I then undid the big end and removed the faulty con-rod and piston on that side. I then replaced the cylinder block including the piston on the damaged side. The piston was pushed to the bottom of the bore and held in position with a piece of wood inserted through the plug hole. In this position it covered the inlet ports on the near side cylinder.

Would it start ? I couldn't see why not. In fact after a few kicks it did start and I continued my journey. I cannot recall exactly how long my "roadside repair" took but I am sure that it was not more than one hour. With only one side working there was a noticeable vibration due to the disturbed balance and the gearing seemed very high.

I suppose that by now, all who are reading this will be horrified, anyway I rode it in this state for a further three weeks before carrying out a permanent repair.

What other motorcycle could you do this to ?

N.G.K. SPARK PLUGS

Prompted initially by Hugh Harrison and reminded when first reading of David Lawrence's plug troubles, I took the opportunity when "on duty" at the Show to investigate N.G.K. spark plugs.

Hugh, now I believe achieving limited success in the vintage racing field with his 1927 Flyer, was introduced to N.G.K. at Brands Hatch (where they were sales conscious enough to send a representative) explaining his difficulty in obtaining hard "racing" plugs in 18 m.m. sizes. He now uses N.G.K. exclusively.

At the Show I was able only to speak to the staff of Read Bros. (who handle the retail side) and they willingly offered to pass on my particular queries.

Shortly afterwards I received a most courteous and informative reply from Mr. L. B. Simms of N.G.K. Spark Plugs (G.B.) 61 Greenwood Road, London, E.13. Not only was a comprehensive brochure enclosed detailing the complete range and showing the construction but Mr. Simms (on N.G.K. headed notepaper, modestly claiming to be "The finest Spark Plugs ever made") explained at some length why Scott riders would find them particularly suitable.

Firstly, he said, the N.G.K. heat range is considerably wider than other makes, i.e. it operates satisfactorily under extreme conditions. This is enabled by the use of a copper rod for the upper portion of the central electrode. Two types only are marketed in the 18 m.m. $\frac{1}{2}$ in. reach range, the A6 and A7, the latter being the harder.

Additionally 18 m.m. (and 14 m.m. of course) racing plugs are available N.G.K. Nos. AB79C, AB83K and AB93K (coldest). Finally Mr. Simms explained that if a harder plug even than the A7 is required he could recommend their special "Taper Seat" range specified by the Ford Motor Co. U.S.A. for all their engines. These are 18 m.m. thread with 14 m.m. hexagon shells, no gaskets (washers) are required but are suitable only in aluminium heads.

Mr. Simms seemed genuinely interested in our problems which he said would receive their prompt attention and even suggested telephoning 01,472,5947 "much more likely to be free" if preferred.

In view of this reaction I hope that any member suffering from plug troubles whether by reason of his racing activities or of more mundane nature, will "take up" Mr. Simms, who seems eager to help.

I have but one criticism of all modern type plugs (N.G.K. included) this being their "non-detachability." K.L.G. were the last to manufacture this type, so much more convenient if oiling-up occurs. I was able to order a box of a dozen direct from them when the supply position had become particularly difficult about two years ago.

(Amongst subsequent correspondence received from N.G.K. is included the following note which is I think of special interest).

In your little write-up we note that you mention your preference for the detachable type spark plug and while this type of plug may be suitable for low compression engines, the modern high compression engine requires a better pressure seal than can be attained with a detachable type spark plug, and though we have no doubt a special one could be designed, it could be expensive, and possibly a little pointless, in view of the fact that spark plugs are comparatively cheap today. Of course, oiling up should not occur in a machine with the correct heat grade spark plug.

L. B. Simms.

TWO IMPORTANT DATES

THE SCOTT OWNER'S CLUB NATIONAL MAIN ROAD TRIAL SUNDAY, 7th MAY

This is being organised, as it was so successfully last year, but our P.R.O. Stan Thomas Please make every effort to support him. It was grand fun, see Kitty Steven's report in the June '66 *Yowl*. It is just possible that the event may be cancelled if insufficient entries are received, so please do your best. Further details, including an entry form will be published in the April *Yowl*.

THE SCOTT OWNER'S CLUB 10th NATIONAL RALLY SUNDAY, 10th SEPT.

The date has now been permanently fixed at 10th Sept. This will most certainly be the biggest Rally so far. It will again be held in the Crown Meadow, Evesham, and there will be several new attractions. Don't miss it !

BRITISH MOTORCYCLISTS' FEDERATION

A Council Meeting was held on Sunday, October 30th and attended by the S.O.C. Secretary. The "59" Club were hosts to the Council Meeting and it was a pleasure to meet the Rev. Bill Shergold the "ton-up" vicar.

The various officers of the Federation made their reports, the Treasurer's report followed closely the reports of treasurers of motorcycle clubs all over the country—so much to do and so little with which to do it !

The Secretary gave details of the efforts made by the B.M.F. in their opposition to the raising of the minimum driving licence age from 16 to 17. Little hope of success was held, however, as it was felt that Mrs. Castle had already decided before asking for objections. Such is Democracy !

A considerable time was spent in discussing the "noise" question. It must be brought home to every responsible motorcyclist and club member that the greatest enemy to our movement is NOISE and it is up to each of us to look to our own machines and not think that ours is the only one that can be excused on the question of noise. Mr. J. Wiley, Secretary of the B.M.F. made it quite clear that he knew that people in high positions of authority were working hard to get the motorcycle completely off the road and it is up to us not give them any assistance in their evil designs.

BEYOND THE LIMIT

(Oliver Rackham suggests some books to appeal to Scott enthusiasts and selects first "Tools for the job" by L. T. C. Rolt published by Batsford 42/-).

What does "Made to Limit Gauge" convey to you ? Does it conjure up the vision of a worthy craftsman carefully checking work at every stage with a rather less worthy works manger introducing mass production techniques, or are you merely relieved that it is always shown the right way up so that the luck doesn't fall out ?

There was no luck involved when I chose a book recently which should re-condition anyone's outlook on making things in engineering. Being an L. T. C. Rolt fan of long standing, I knew as soon as "Tools for the job" was published that, as usual, the combination of author and subject would prove totally absorbing.

At the risk of ex-communication from the Club, I will admit to having had doubts in the past about the compatability of gauges with vintage production, preferring the picture of a skilled fitter with his grandfather's micrometer. If you share this reactionary view—relax, we are wrong. Many outstanding engineers of the past have striven to make production easier and quicker, (admittedly from economic motives) but in doing so they have created a higher standard of engineering. The quest for interchangeable manufacture has put a premium on accuracy and the very quality of interchangeability is itself a criterion of achievement. Fine measurement implies the adoption of standards. With this in mind, it would be more worthwhile to own one of Eli Whitney's first 12,000 muskets of the early eighteen hundreds than a firearm made by an individual craftsman a few years earlier. Apart from being fascinating to study, Whitney's would have more meaning.

Rolt shows how the most brilliant new design can be useless if it is ahead of contemporary production capabilities. Watt's pressure steam engine had to wait years until John Wilkinson machined the cylinder on his improved cannon borer and this dependence on machine tools continues right through the industrial revolution and into the age of the motor-car. We owe our weekend mobility as much to Charles Norton (of grinding machine fame) as to Karl Benz.

In America, quantity car production got off to a painless start, following on as it did from sewing machines, bicycles and typewriters. In this country, for the first half of the 19th century, we had led the world offering as our crowning glory the beautiful proportions of Whitworth's radial drill but torpor then struck and Dr. Lanchester had his work cut out after designing "the first truly British car" in 1903. He then had to "design the machines and jigs and plan the production methods to make it." This included a special hobbing machine for the hour-glass worm and wheel in the final drive and the production of his own roller bearings, as well as the designing of a range of threads prior to the introduction of B.S.F. He also evolved a system of single tolerance figures (plus for internal dimensions and minus for external), which had the great feature that it gave direct readings of permissible error or of wear in service.

The ironical thing about we vintage people is that our heroes of the past were just the sort of dynamic pioneers we most deplore in our own time. It is easy for an engineer to be sentimental about something nice that is gone and it takes a historian's perspective to keep him on an even keel. Rolt is both.

"Tools for the job" ends in what we know as automation, automatic control and transfer really. This is the next step in "building the skill into the machine" which has been the engineer's object all along.

Of course the fact remains that all of us come across nastily made articles today and some things get progressively worse. My own feeling is that this is directly linked with the rise to power of the accountant in industry, which roughly dates from the great depression in 1931. It is of course no coincidence that this marks the end of the vintage era. Left to his own devices and perhaps

the general economic forces of the day, the engineer will design something to be proud of, and produce it by sensible methods. Under the undiscerning pressure of accountants, the job is cheapened beyond the balance point and the rot sets in.

Perhaps there will be a swing of the pendulum. A nice pendulum mind you, not stamped out of sheet on a press brake, nor yet a wood and brass one turned on an ornamental lathe but an aluminium casting—machined all over.

On the subject of Scotts themselves Mr. Rolt admits he's no expert. He was contacted in connection with this review, and commented :—

"I'm afraid my experience of Scott motorcycles is not a personal one but is confined to years of admiration from the side lines. I remember when I was an engineering apprentice in Stoke on Trent in 1929 the sport of dirt track racing was just beginning and I used to go as a spectator to a track in Stoke. With one exception all the riders used dirt track Douglases at that time. The exception was a rider from Belle Vue, Manchester (could his name have been Frank Varley ?) who used a Scott. It was noticeable that whereas all the Douglas machines used one "pusher off" at the start, the Scott required two and even with this help was usually last away. I remember how I used to admire the way the Scott made up for this initial handicap and the simply splendid noise it made !

MRS. OR MISTRESS !

—some comments on that eternal triangle

by *Anne Lee*

I was introduced to Geoffrey (and Scotts) in 1959 and very soon afterwards experienced my first ever ride on a motor-cycle. I remember we went through the local High Street (Wembley) on one of Geoffrey's bikes (a vintage "Flyer" he tells me) delivering it to its new owner. I was so terrified though that I had to shut my eyes tight and grasp Geoffrey strongly around the waist, (not quite, I believe, the recommended fashion !)

A Club run sounded great fun. They were generally more popular at that time. One of the "annuals" was the "Run to Rye" and off we went on our newly acquired "F.P." an untidy but reliable machine of the mid-thirty period. My mother had insisted on a crash-helmet so my head was kept warm but I remember clearly the rest of my body was so cold I could hardly feel it. We came back late at night after the pubs had closed (the "William the Conqueror" down at the harbour was the accepted venue) and these returns in the early hours were by no means leisurely affairs ! Since then I've had a golden rule for travelling pillion, or in the back of open vintage cars—always have more clothes than you could possibly think necessary.

I soon began to realise just how many more evenings were spent in the garage attending to the Scott than at meetings or rallies. As Geoffrey came to know his new Scotts I came to know him. If all was going well then we had a pleasant evening but on other occasions nothing went right. This was partly due to the several modifications which had been made to this machine necessitating, in some cases, the most laborious "detours." Geoffrey was inclined to be short-tempered particularly if we were working, as was quite often the case, to a deadline and many times needed reminding that I had neither the strenght nor engineering "know how." I was always allowed to help with the chain fitting, however, because my hands were smaller and nails longer ! My clothes and hands were often dirty and I was quite unable to scrub with the same force as Geoff with his hard skin. Usually there was little time to spend on cleaning the bike prior to a journey the following day and of course, my dresses would subsequently need liberal applications of "carbon-tet" to revive them.

Our summer holiday that year was to be spent touring Wales and then the English south coast on the inevitable "F.P." Geoffrey made some pannier

frames from angle-iron to take all our luggage. All went well, we visited some friends first near Liverpool where we stayed a little longer than originally planned in order that the radiator could be removed and repaired. We reached the Aberglaslyn Pass and it was there I sensed a strange feeling of moving away from Geoffrey. I mentioned this several times but was told not to be ridiculous. Finally I was convinced something was wrong, and used my "schoolteacher voice" in ordering a halt. When inspected we realised that the rear mudguard lower bolt had come adrift and, with me and the luggage aboard, was slowly creeping backwards. Repairs were put in hand and Geoffrey de-barbed some wire readily at hand and attached us more securely to the rest of the machine. The tour continued satisfactorily, three other incidents coming to mind. There is now, of course, a Chepstow Bridge but we used the notoriously slow ferry crossing. Geoff adopted the usual two-wheeled practice and proceeded to the head of a good quarter-mile queue. I felt rather embarassed but there were no objections from car drivers picknicking at the wheel etc., until we reached the front when driver No. 3 in line hooted loudly as we passed and continued to do so. I was scared as I could see us being sent right back again but fortunately a young helper, presumably sensing trouble, waved us through straight onto the boat.

Later on at West Bay, Dorset, I remember reading over and over again those portions of the Scott book about engines that won't go. Geoffrey checked everything in turn (including the obscure sticking glands, I'm told) and in the end it was something quite simple but first we had to call on fellow Scott owners at Bridport. (Spark breaking down under compression, owing to faulty brush-holder.—*Ed.*).

Then again, travelling along the coast road to Hastings our poor lights necessitated following the "cat's eyes" or, more worrying for me, tearing too fast after passing cars making use of their better headlights. Although we experienced several mechanical breakdowns on "F.P." it was essentially in the electrical department (not Geoffrey's speciality) where most of the trouble occurred throughout its time. We fitted numerous magnetos, but more of this anon.

At about this time my family moved to Norfolk and my father, quite suddenly I think, began to realise just how much Scotting I was doing. He gave me a little lecture about too much riding on motor-cycle pillions. He felt it could harm me and might affect my having children. After this I think that I was supposed to "come to my senses" and not go motor-cycling again but I was not giving Geoffrey up so easily! Our local G.P. said he thought it was all nonsenes but I knew this was not sufficient for a father such as mine. It had to be in black and white I realised and so I decided to write to an "Agony Column" in a woman's magazine and present them with the problem. I received a prompt reply conveniently "de-bunking" the whole theory and agreeing with the doctor. After merely passing this letter on to my father I naturally heard no more and now have a 9 month old son to convince him also.

My two years at college in London meant that I was able to see plenty of Geoffrey but in view of the location of the college (Tottenham) certain difficulties presented themselves. There were the strictest penalties for getting in late at week-ends. The Scott never let us down during our "race against time" back to the college by midnight. It was whilst I was there that I received a 'phone call one Thursday lunchtime—most inconvenient and an unheard-of thing for Geoffrey. It transpired, however, that a Scott electric horn was advertised locally in "Exchange & Mart" and I got the job of skipping lectures to ensure its purchase. The area was not particularly choice and I remember thanking my lucky stars that I'd not been given the job in the dark which would have been quite frightening. I did manage to buy the horn and Geoff was very pleased with me, as it was complete and in good condition.

Geoffrey was always particularly keen to join any gathering headed by "Lofty" the previous Social Secretary and pianoforte exponent. It was after

my first meeting at a pub in the remoter part of Hertfordshire—"The Horns," that I was asked to return and ask the publican for some water for our radiator. He was convinced I'd had too much to drink and it was necessary for me to get the "backing" of one of the men before he'd agree to my request.

Most of these "sing-songs" are great fun and easy to join in, the songs being mainly corruptions of popular numbers. On one occasion, however, at the "Smugglers Club"—a remote haunt of "Lofty" at Hulbridge-on-the-Crouch in Essex, several Scott members including ourselves came down as guests. I was pleased to see several other girls there but as the evening wore on (it was officially a "club" of course, i.e. bar open till 12.00) these disappeared and I was forced to hide my blushes in a dark corner when the boys expanded their repertoire!

So often, of course, after evenings such as this we only reached home in the early hours. I've journeyed with Geoffrey to, I think, three National Rallies on the Scott (on one occassion coming over from Fakenham to Stratford at a steady 60). On another occasion when "F.P." was having the "electric sulks" again, I was transferred to "Lofty" and all went well till he had to take off the Scott to a quiet corner to replenish the radiator i.e. two birds with one stone! Having arrived home at 2.30 a.m. after that Rally I started my first proper teaching job about 6½ hours later!

Another summer I had a disturbing experience in Leicester Square. It was after a visit to the cinema one Saturday evening. One moment Geoffrey was beside me, the next he was chasing a Scott into the crowds. I was left standing on the corner for well over an hour. Nothing worse happened except odd men bumping into me but it was a great relief to see Geoffrey again, protesting, of course, that he had naturally expected me to walk along and meet him at "something" Street not realising how limited my knowledge of the West End was.

One year we went over to Ireland for a week and although a memorable trip, it was for neither of us a very enjoyable one. The Scott had received a good deal of attention particularly in the magneto department. We reached the Liverpool quay without incident but were met with a strike of the vehicle-loaders. Geoffrey was determined not to go without the Scott so we travelled over to the Wirral and stayed most conveniently the one night with Mrs. Beggs, now George Steven's mother-in-law. The following day, having arranged to have our tickets over-stamped, we were able to get on the boat. Whereas though we were not allowed to go aboard till 8.00 p.m. vehicles were required from 3.00 p.m. As soon as Geoff saw the way they were being treated, being raced along the quay etc., he insisted on staying with the Scott and when it came to its turn to be loaded he pushed it to the edge, repositioned the lifting ropes as as not to strain the tank, and generally supervised the operation, much to the men's (on their first day back at work) annoyance!

The journey over was uneventful and the following day we moved into our previously arranged "base." On the next day we'd reached the Wicklow Mountains when the magneto (again) gave trouble and by the time this had been located and arrangements made for the Scott to be picked up (no chance of a tow, we waited in the Dublin suburb all one afternoon and saw only one bike over 250 c.c.) there was only just time to locate the Lucas Service Depot and badger them into making a temporary repair to the slip-ring when it was time to catch the return boat. In fact, due to the nature of the repair and the trouble involved it was only refitted on the Liverpool quayside for the homeward journey! It was then whilst helping Geoffrey to trace the fault that I received my first and only high tension shock. It brought tears to my eyes, partly due to frustration and the realsation that anything could produce such pain with so little apparent movement.

It was after our return from Ireland and with the trouble rectified, on Sunday Geoffrey explained that instead of joining the lads for a drink before lunch we were going up to the King's Head for a drink on our own. He also insisted that it should be the Scott that was used and I was a trifle annoyed I remember as I preferred some notice where the Scott was concerned. I was sufficiently placated

though when he tossed out a proposal in between buying the drinks and reporting the week's news !

I was delighted when Geoffrey bought a Scott with coil-ignition and a separate impressive looking dynamo. Now, I thought, our old "bug" is over. This has, in fact, proved to be the case. Although never fully restored we used this bike "H.B.M." a great deal and have it still. It is intended to become a sidecar hauler eventually. Another feature I liked very much was the dual seat which we re-covered satisfactorily. This Scott was come by in an unexpected way. Geoffrey was gradually restoring a pre-war Delage car in his garage when our present 1924 Crossley was bought, so for this a garage had to be hired. This became rather expensive so the Delage was put up for sale, albeit semi-restored. (At this point I feel I should be allowed my boast in that I was able to put right the car's electric gearbox by close examination of the switch mechanism—previously the only gears available had been 1st and top).

A pair of "semi-enthusiasts" arrived to see Geoff's "Wun-Lung" Scott single—also for disposal. They arrived in "H.B.M." with homemade sidecar, three children and an Alsatian dog. The bike was owned by a milkman from Oxford who was much impressed with the Delage, it being a good looker in spite of its tatty paint. An immediate exchange was effected but we heard shortly after that the car was for sale again quite locally.

Three years ago we first heard of the T.T. Scott which Geoffrey is now working on. He was determined to have it and I was brought in as part of a new "ploy" when his earlier attempts to buy it had drawn a blank. We journeyed down by train (very difficult and we hoped impressive) and talked to the middle-aged vendor. I was instructed to join in enthusiastically and if possible strike a new note if one occurred. Eventually after many months it was obtained (Geoffrey giving the same inevitable reply to enquirers as to what he wanted for Christmas etc.) When finally the price (high, for a few years back) was agreed upon I recall Geoffrey calculating how much he'd made from selling surplus spare parts, in order to justify its purchase to me.

Adrian, our little boy, was sat recently upon his first Scott. He showed little interest, however and in spite of the fact that the first object he held was a Scott crankpin Geoffrey has promised not to force him into Scotts. In fact, knowing Geoffrey, I expect he'd prefer his sons to enthuse over poetry or butterflies or something and keep out of his garage !

One of the first people to read the the above prior to publication commented that it read not unlike a romantic novel with a Scott bias. A new departure certainly and who knows ? it may encourage more of our "lady associates" to try their hand also.

Dear Ed.,

Although you apologised for the October *Yowl* it was nevertheless, in my opinion, full of pretty good meat.

The "Flying Flea" lost a bit of its bite through its French name being given as "Pon." Actually it is, of course, "Pou" the *Louse* and Pou du Ciel—Skylouse —not "house." Not important but just for the record.

My elder "boy" (actually in his sixties) has had his rather difficult rebuild of the late Alastair McIntyre's Scott out in a vintage trial over the North Yorkshire Moors and it behaved as one expects of a Scott and took him there and back without any argument at all.

Yours sincerely,
J. Stuart-White (Senr.).

SPRINTING WITH A "SWIFT" ENGINE

by *Brian Woolley*

When John Hartshorne had a disastrous upset with his vintage engine, I had one of Aerco's Swifts here in bits for a rebuild and had just measured up the engine for a tuning session. Taking our courage in both hands, we grafted the Swift engine into the Sprint Special !

Calculated from the crankcase volume, we had longer (ten inch) inlets made up for the 1, 1/8 in. monoblocs and also a pair of modern "expansion boxes." The inlet timing was altered to allow the engine to make maximum power at 6,000 r.p.m. (to which speed the other breathing phases were tied also) but the porting was left standard and nothing polished, even the (literally) chiselled-out transfer passages being left as made.

Initial rough carburation was completely cured by fitting smallerpilots and richer slides and as an extra precaution, the inlet pipes had a flexible insert. This was after vibration fractured an inlet pipe at the first meeting.

George Silk Jnr. was very helpful in getting the central flywheel reduced and honing the cylinders to racing fits.

John found that the motor justified the calculations, inasmuch as maximum power was indeed at 6,000 ; although completely flexible and willing to rev. to 7,000, real power existed from 4,000-6,000 r.p.m. Unfortunately with ratios of 10.4, 7.16 and 4.9-1 the motor was severely hampered and a very studied riding technique was required. This is certainly reffected in the recorded times I have by me, as on almost every run John improved over his previous time !

Esholt Park—17.68 sec.—17.76 sec.
Driffield—17.75 sec.—16.01 sec. 15.71 sec.
Duxford—15.27 sec.—14.69 sec. 14.43 sec.

Later at "Santa Pod" better r.p.m. figures were seen but results were not good due to a faulty gear change.

In half-a-dozen events the motor was never touched and started and ran sweetly at all times. However, on a very short "paddock trip" I must say that I frightened myself thoroughly, the combination of tremendous urge, a vintage frame (and rather wobbly forks !) doing some very suspect things to the steering, or so it seemed to me !

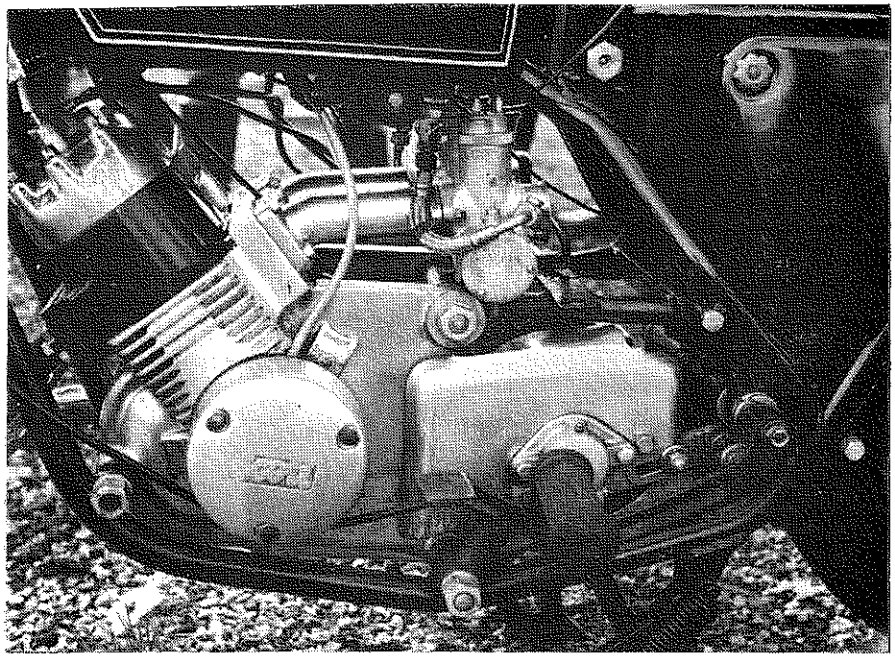
I have no doubt at all that the Swift engine would have been—still would be —capable of great development. However there are only a few around and it would be most unwise to risk smashing one by revving it to 7,500—when I estimate 60-65 B.H.P. could be available.

Food for thought—John was crossing the finish line at 95 m.p.h., still accelerating !

John himself adds "The machine, by the way, is a 1930 Sprint Special not '29—for sprinting I use a combined petrol/oil tank and a tiny radiator—both from a '29 Speedway Scott—the only ones I've seen except those on Varey's bike."

He goes on to say that these modifications are by no means permanent and the Scott is very original when used on the road. He sent down some photos and promises a piece later, on using a Scott for trials ! Yes, just that. He suggests he's the only chap still using a Scott for this job, "The only one barmy enough" and from his pictures I see he's obtained the Registration No. U6—Billy Moore's old number, one of the best known Scott Trial "Conspirators." The trials machine which looks well suited for the job is developed from a 1928 Speedway machine.

It's grand to see such enthusiasm. John clearly gets a great deal of fun from these Scotts of his without cutting them about and includes in the stable a beautifully restored '30 Tourer for more conventional activities. He won the two-stroke cup in the V.M.C.C. Tour of Birmingham too.



THE SWIFT ENGINE—10 YEARS AGO!

MIDLANDER'S VIEWPOINT

by *S. E. Thomas*

Recently several aspects were discussed to promote new interest within the Club. This year will be the year of our 10th National Rally and as a special anniversary effort, plans are being drawn up to make this event the biggest attraction ever. I can't give you too many details at this stage as they are still to be finalised but we are hoping to have a section displaying "Racing Scotts" for a start, including, (with Matt's permission of course) the fabulous 350 c.c. racer. The date has been confirmed for the Rally and will be 10th September. As P.R.O. I shall contact the other clubs to ensure that there are no date clashes.

The Main Road Trial will take place on May 7th this year, despite the poor attendance at the last one. We have argued at great length about the holding of this event and we decided that it was partially due to lack of publicity that this event near-failed. So, be warned chaps—unless there is a good turn-out at the next one the Main Road Trial will be dropped from the Scott calendar. This is not a moan, threat or blackmail, it simply means that if the turn-out does not justify the effort to organize the event it will be scrubbed. To give you some measure of what is involved on the M.R.T., last year's event took six full week-ends, 700 miles covered, 14 marshalls and about £10 to lay on! That was over £1 per competitor.

EARLS COURT, 1966

by *Harold Scott*

After passing endless posters along the subway from the Underground Station about "causing" to Honda, I entered the glitter of the Motor Cycle Show and made straight for Clubman's Corner, determined to meet the British Motorcyclists' Federation, Vintage Club and Scott Owner's Club "boys" first, whilst fresh.

There, sure enough, were Harold Booty and Jack Wiley of the B.M.F. Phil Heath of the Vintage and Maurice Patey, Ron Mountain, Frank Banks and John Hawkin of the S.O.C., and we chatted away for a long time . . . you know how you do! They had some fine photos. of vintage machines in action. also a big picture of the Woburn Rally with the Duke and Duchess of Bedford Robert Rawlins, Cyril Wright and Jack Wiley.

Then, over to the "59" Club with a membership of thousands, led by that sporting parson the Rev. Bill Shergold of Paddington, complete in black leather jacket . . . a grand team spirit there.

Off now to the Show itself, to the Triumph Bonneville, which with its two coupled engines reached 247 m.p.h. . . . Phew! . . . then to the dragster having two Norton engines packed into a titanium frame.

As a contrast . . . those chaps riding through rough stuff around the Filtrate oil stand on motorbikes powered by electric motors from Lucas batteries, as compared with our International Six Days Trial gold medal stars, including Arthur Lampkin, who also won the Golden Jubilee Trophy in last year's classic Scott Trial . . . Jeff Smith's B.S.A. too, was to be admired.

The Army Motor Cycle Association thrilled young riders "following" a film of rough roads rushing towards them, as did the sidecar drivers complete with safety helmets, leaning round bends on the B.P. Simulator.

The central stands that caught my eye were the six masterly Michelin cyclists pedalling away, then free-wheeling, all with different expressions of effort and determination; the 500 Velocette Venom Clubman; the new link Norton-Villiers; the 360 Greeves Challenger scrambler and the Suzuki Merry-go-Round.

That worthy organisation—Volunteer Emergency Service were on the job, while the strong young lady on the Terry Springs stand was quite a pull!

Many bicycles had the modern small wheels but not quite as small as the Moulton; while Rospa's Golden Jubilee included a Safety Cycling Competition for 1967.

Historic machines on the R.A.C. stand included the late Freddie Dixon's banking Douglas sidecar outfit, also a very early A.J.S.

The *Daily Express* parade of Fashion on Wheels, with pretty girls in natty clothes, from black and white fur coats to gleaming P.V.C. suitings, drew a big audience . . . all very much "In"!

Five hours had slipped away and so had my energy, so after a look at the shining all chrome-plated Vespa revolving slowly, I was glad to board one of the new fast trains from Euston—the home of the Collectors' Club—back to Coventry.

A Mr. D. G. Rouse writes, in a recent issue of the V.M.C.C. Journal on the subject of unsatisfactory proprietory rust killers. It was a matter, he says, he went into quite deeply a year or two ago. He eventually decided that Jenolite can be relied upon, providing their chemical sealer also was used after the treatment. But it's not the ironmonger's grade he recommends; after correspondence with Jenolite themselves he settled on liquid R.R.N./I. and sealer C.S./4. These can both be supplied by the manufacturers but in quantities of not less than 1 gallon.

A SCHOOLBOY'S DREAM or HOW I BECAME A SCOTT CRANK

by *George Silk*

Reading a letter in the June issue of *Yowl* prompted me to pen some lines with the idea of helping out the Editor.

I was a schoolboy in the early twenties when, just to scramble under a station-ary lorry, get a bit of dirty grease on ones hands and face and crawl out again, qualified one as being an engineer. That then is the reason why I became mechanically minded at a very early age.

I still live in the village where I was born, Hammer, in Sussex, the village lying, as a matter of fact, on the borders of Surrey, Sussex and Hampshire and of all the counties in England I think Sussex is the best. The part of the world in which I live is often referred to as the Switzerland of England. Just over the border in Hampshire is Hammer Vale, a continuance of Hammer, and in the opposite direction the nearest town is Haslemere, in Surrey.

In what was called "the bad old days" the motive power for the ordinary workman was of a "two stroke" type—a sturdy pair of legs! Motor cycles and motor cars were far from numerous and many trading firms and builders de-pended upon the four-legged H.P.

Amongst this clippety clack was a young man who, with his friend, rode motor cycles, one being a big-twin Matchless and the other having a distinctive YOWL! It was the latter type of motor cycle that took my fancy and I became one against several of my mates but even these overwhelming odds did not make me change my mind and the longer and more heated the arguments became, the more I became dedicated to that "heavenly yowl." The owner of that Scott became my schoolboy hero and to me the Scott was the absolute. One day, I promised myself, I would own such a machine and even though a long time might have to pass and designs might change, it would still be the same make —a Scott.

One Sunday afternoon the Petersfield Motor Cycle Club of those days held a road trial and a refresher stop and check point was only a few hundred yards away from where I lived. My mates and I went along as self appointed scruti-neers (it must have been the mechanics in my blood!) Quite a number of mach-ines arrived, all being given a very thorough check. Suddenly we heard the roar of a fast travelling motor cycle which came to a halt near us. It was the khaki-coloured Matchless twin ridden by Jack Peacock, who also used to race this machine I believe at Brooklands. Then, out of the blue, was heard that dis-tinctive note that could only mean one machine, the Scott, and in came my hero. My day was made and my scrutineering came to a sudden end. I be-came the leg-pull of all my mates but I still remained faithful.

As the years passed by I left school and my liking for the Scott and the determination to own one became greater, the deciding factor, of course being money. Wages were low, unemployment rife and even single men had to economise if they wished to own a machine and this meant many years of saving.

My first job was in the local brickworks where there could be found many of the two-legged mechanic fraternity and not one of them resembled in the slightest the Scott. I could still argue over the merits of the Scott and if argue-ments would have paid for a motor cycle I would have owned one years before I did, plus the Shipley works into the bargain! I remained at the brickworks for three years and three months and then became apprenticed in my present trade, carpentry. It was during this period that a Scott was placed 3rd in the I.o.M. T.T. Race, I just forget the year. Also, my hero, riding in what was the I.o.M. Amateur's T.T. was placed 6th I believe. For a long while after this no one could hold me, not even the manager with his threats of the sack. (He must have been a gen guy for I remained employed).

So the time passed and as my pay was still low my dreams had to be extended a number of years but one day I would own one I resolved.

Towards the end of my apprenticeship I became the owner of a motor cycle at last but it cost me two pounds. I also managed to get the insurance trans-ferred with the bike and with a few spares to buy I eventually managed to get my 16 H. model on the road. I liked the bike very much and what a reliable model it turned out to be for it transported me many thousands of miles in a very few months. But still I had not fulfilled my dream and one great day, via a friend of mine in the trade, I became the proud owner of a 1926 2/speed Super Squirrel for the price of two pounds plus the 16 H. in part exchange.

No man, even one wearing a top hat and driving a Rolls Royce, could have been prouder than I was as I drove that machine home and all I could do for the time being was ride it in the back lanes and hope that I would not get caught by a policeman. During the waiting period to get it licenced I started to "con-cours" "Cobber 1" Then came the day when "Cobber 1" was legally allowed out on the "King's highway." I filled the tanks with petrol and oil and then started touring all the streets in the district displaying the goods. The streets of Haslemere knew more about the make of the Scott and its tone than any other motor cycle of its time; these days were like manna from heaven, but Oh! the cost of petrol—11½*d.* a gallon! I had to lay the bike up for three weeks to restore my financial situation. I found out that the previous owner who had gone in for grass tracking, had "hotted up" the engine of P.E. 251 which was only giving 24 m.p.g. when I was lucky. Reluctantly, I had to sell "Cobber 1" and you can guess the size of the lump in my throat as I watched the new owner drive it away.

Since that day I have owned many motor cycles, mostly Scotts, two of them being "concours" machines but "Cobber 1" has always remained my favourite. You see, it was the fulfillment of a Schoolboy's Dream.

Although I only own one Scott at the moment I am trying to raise this also to "concours" standard, so look out all you bull-shine artists, for to beat me you will have many hours of bull-shining to do.

But it is to you sir, Major Paul Stables, originally of Weydown Road, Hasle-mere, a schoolboy's hero, that I say "Thank you for introducing me to the best, the SCOTT."

SCOTTS IN VICTORIA

by *Bob Thompson*

In the years since World War II motorcycling reached its peak in about 1950 or 1951. Since then there has been a gradual decline until the present time. although the lightweight Japanese (mainly) motorcycle seems to have revived interest to some extent lately.

Although I believe that small numbers of Scotts were imported after the war I have never seen a post-war Scott in Australia. I have in my possession a clipping from the Melbourne "Age" dated the 16th of May 1947 stating that orders were being accepted for the 1947 Scott. No price was given but I quote "its value today will probably be at a high figure."

As far as I know there are only five Scotts in Victoria which are registered for road use. These are owned by John Olsen 1928-29, Ernie Alsop 1929 (2), Ron Walker 1912 and myself 1938. Scott Club member Ron Lancaster of Ballarat is at present restoring his 1929 machine and it should be finished early next year. As well as these machines actually in use the whereabouts of several others are known, however it is a very difficult job trying to prise them from their owners. In addition to Ernie Alsop's bikes above he also has one of the single cylinder 300 c.c. machines.

Before the war there were at least two three-cylinder Scotts in Victoria. It is known that one of these was returned to England and it is thought that probably the other one was also, although no-one seems to know for sure. Per-haps some reader can throw some light on this matter. One thing is for sure, until it is known for certain that both of the three-cylinder machines were re-turned, the search will continue!

A CAGED ROLLER BEARING FOR THE BIG-END ON A SCOTT

Part I

by *George Bennett*

On the normal Scott big-end, the rollers in the bearing are "crowded" and of large diameter, whilst the crankpin is weak and the crank disc flexible. These four factors contribute greatly to the failure of the big-end at high r.p.m. The following text deals with each factor in turn, highlighting the reasons for failure of each component.

(a) *Crowded Rollers.*

A bearing is said to have crowded rollers when there is no cage separating the individual rollers and these bear directly against each other. Although this type of arrangement possesses the advantage of having a large area of contact between the crankpin and the con-rod eye, the objection is that at high engine speeds centrifugal force tends to throw the rollers outwards from the crankshaft centre which increases the friction force between each roller, causing considerable wear (see fig. 1). There *is* a speed when the friction force is so high that the rollers lock and wear is very rapid.

(b) *Large Diameter Rollers.*

The speed at which the rollers will lock depends on the diameter of the rollers: the smaller the diameter, the higher the speed at which locking will occur. (This is due to the reduction of weight). But, unfortunately, small rollers rotate faster than large ones, causing more rapid wear, so this is not the complete answer.

(c) *Crank Pins and Crank Discs.*

Crank pins and crank discs have been known to break at high r.p.m. also, the rollers in the bearing wear at each end giving a "barrel" shaped roller, due to the disc deflection, (see fig. 2). The obvious solution to prevent deflection and/or breakage is to have thicker discs but, due to the compactness in the Scott design, this is impossible. However, a partial cure is to use narrower rollers, i.e. $\frac{1}{4}$ in. wide, as used in the main bearings, which have two effects:—

1. The centre-line of the rollers is brought closer to that of the crank disc which reduces the amount of overhang and hence there is less tendency for the crank disc to deflect.
2. Due to (1) the rollers do not wear so rapidly at each end.

Note—The overhang can be reduced even further by utilising narrower inner roller plates.

FITTING CAGED ROLLER BEARINGS.

By using the narrower rollers ($\frac{1}{4}$ in. wide) a cage may be fitted to the big end bearing. For my own use I have constructed a cage, from Dural bar, in the form of a complete ring with extensions to keep the rollers apart (see fig. 3) Incidentally, I reduced the number of rollers by two, to ten, to give sufficient room for the cage to be fitted.

The advantages of having a caged bearing are many and below I have listed some of them, in order of importance.

(*a*) A cage separates each roller from its neighbour and the centrifugal force set up due to motion is taken on the cage bar, instead of the neighbouring roller, which prevents inter-roller scuffing.

(*b*) A cage guides the rollers parallel to the direction of travel. In the standard big end, side plates guide the rollers but due to the clearances allowed, the rollers slew and wear is set up between the ends of the rollers and the side plates, causing the rollers to skid more easily.

Even at low speed the rollers in a crowded race can slew and cause wear, so a cage would be useful even here.

(*c*) By using duralumin for the cage and also by using narrower and less rollers, the weight of the roller assembly is greatly reduced. At high speed this is a big asset since, due to the oscillating motion of the con-rod swinging about

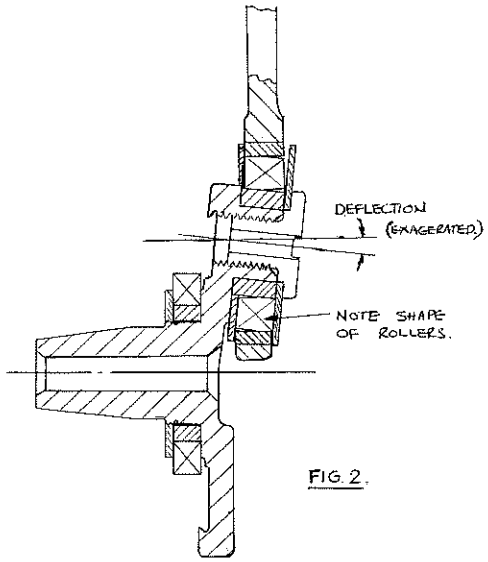


FIG 2.

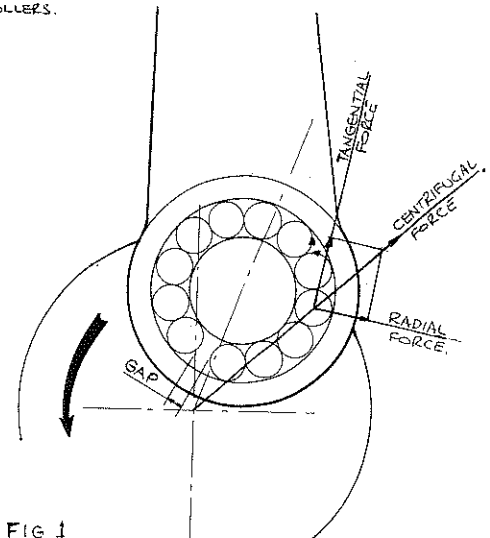


FIG 1

CENTRIFUGAL FORCE $= \frac{W}{g} \times \omega^2 r$.

RADIAL FORCE TAKEN BY OUTER RACE.

TANGENTIAL FORCE TAKEN BY NEXT ROLLER.

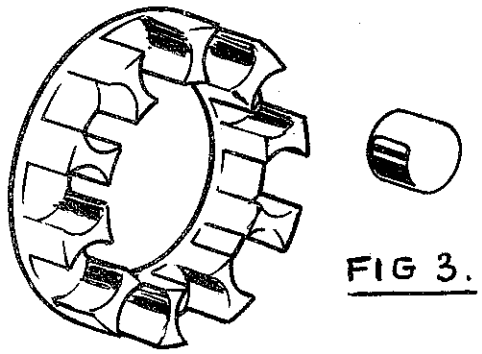


FIG 3.

the gudgeon pin, the rollers speed up at T.D.C. and slow down at B.D.C. The forces causing skidding are found from the formula Force $= \frac{\text{weight}}{9} \times$ acceleration, from which it can be seen that the lighter the rollers the lower the forces causing skidding and hence the life of the bearing is prolonged.

(*d*) Dural is a good bearing material, especially against steel, providing it is lubricated: therefore friction is again reduced in the bearing.

(*e*) Although the total bearing area of the caged rollers is less than that of the standard bearing, the "guidance" of the rollers should make the big end last much longer.

The foregoing are my reasons for fitting a caged big end bearing to my Scott. A batch of cages has been produced and several volunteers will be testing them in their engines. In part II, I will give details of how I produced the cages and of how to fit them to the engine. Any comments? Please write to *Yowl*.

MIDLAND SECTION A.G.M.

The A.G.M. of our Midland Section was held, in fact, on 2nd Nov., last year. Unfortunately the report was received too late for inclusion in the December *Yowl*. Twelve members were present including Mr. Scott the Club President and five others.

John Underhill was elected as the Midlands' Secretary and any new members in the area are asked to contact John for further details of the Section's activities.

D. Cox, Alan Cooper and Colin Smith were also elected to the Midlands' own committee and Andrew Marfell agreed to take on the responsibility of "Official Photographer"!

At a subsequent meeting of this committee it was agreed that the shield presented to the Club by ex-midlander Ron Mountain would, in future, be known as the "High Speed Award" (not the Sprint Award) in order to embrace road racing also. The question of nature of award for the E.A.M. Bowl has been left in abeyance (perhaps Mrs. Mountain herself has a preference—*Ed.*).

John Hobley has agreed to arrange a "Jaunt and Lunch" in the summer—date to be announced. The traditional Midland Section Tramps' Supper is to be re-named the "Tramps and Fancy-Dress Contest—Supper Ball" and will be held at the "Wheatsheaf" on Saturday, March 25th. Further details of this and the "Meriden Meet" on Sunday 16th April, to both of which, of course, all members will be welcome, can be obtained from John Underhill.

This run to Meriden in the Spring should be most enjoyable. Any members in the South disappointed at the lack of similar events in their part should certainly make that a date—it's well south of "Brum." Eric Lemon will be pleased to arrange a run for London and Southern Counties members providing he gets adequate support.

Our President Mr. Harold Scott recently sent a copy of the magazine of the Triumph Owner's Motor Cycle Club and whilst one doesn't like to "knock" fellow enthusiasts, it makes a poor comparison with *Yowl*, even though I say it myself! Harold comments—"No photos, No maintenance," clearly thinking of Lofty's excellent T.C. articles. In fact one picture is included (on the front) in 24 pages but so are nearly seven pages of trade advertisements. I don't know how large or wealthy the club is but note that they are going to the Hammersmith Town Hall for their Dinner-Dance when the admission will be limited to 600! Just think what the S.O.C. and *Yowl* could be like with trade support and twice its membership!

One particular point which caught my attention: the title is "Nacelle" referring of course to that well-known Triumph feature which, since well pre-war has embraced the fork crown, headlamp and instrumention into one "streamlined" unit. Other manufacturers including Royal Enfield, B.S.A., and even Velocette have imitated it from time to time. But the embarassing point is this that after, I suppose, nearly 30 years Triumph have reverted to the "naked" look—principally one supposes for the benefit of the American market and now sport just a simple headlamp—a full circle . . .

Which brings me back to Brian Woolley's remarks on the Swift. After composing the above I was persuaded to search out from my cuttings Bernal Osborne's "Motorcycling" report on the prototype "Swift" published on May 29th, 1958. There it was:—Osborne wrote, "Missing is the Scott 'Yowl,' large diameter exhaust pipes, necessary to create the extractor action demanded by a flat-top piston 2/stroke are responsible for a note altogether deeper than that long associated with the Shipley built Scotts."

He adds that the Swift's was resonant and pleasant to the ear but even so perhaps it's just as well the project lapsed or we'd be in the same boat as the Triumph boys with an obsolete title!

"HANSARD" and the SCOTT TRIAL

by *P. H. Smith*

The recent death of the well-known Yorkshire sporting Peer, Viscount Ingleby, brings to mind the fact that he was once responsible for a mention of the Scott Trial in "Hansard."

Formerly Osbert Peake, he was for many years M.P. for a Leeds constituency; a typical sportsman and well-known rider to hounds.

On one occasion, around 1938 in the House, there was one of those inevitable discussions going on about road accidents and in particular motor-cyclists After the usual drivel which is common on such occasions, Mr. Peake delivered a few apt words. Not having a copy of "Hansard," I cannot quote verbatim but the general idea was as follows:—

"Of course these chaps want to blow off steam—it's perfectly natural. Folk should do what I do. Once a year I give them the run of my moors for a day. They ride through rivers, over mud and rocks and things; smash up their machines and fall off all the time. A lot of lunatics, all of 'em. It's marvellous; I wouldn't miss it for worlds—It's a thing called the Scott Trial, or something!"

A "grouse moor" image somewhat removed from the one bandied about by some latter-day politicians, no doubt; but the future Viscount had got the right idea, as the boys up Middlesborough and Darlington way know full well.

NEW MEMBERS

Appleton, A. F., 138, High Street, Godalming, Surrey.
Barrett, W., 17, Godley Road, Halifax, Yorkshire.
Bennett, R. W., 5, Hawfield Gardens, Park Street St. Albans, Herts.
Draper, C., 276, Birchfield Road East, Northampton.
French, A., c/o Messrs. A. & J. French (Oxford) Ltd. 2 & 3, Park End Street, Oxford.
Hodges, H. R., 38, Pooley Green Road, Egham, Surrey.
Hough C., 2, Marquis Lane, Harpenden, Herts.
Harvey, A., 67, Meadthorpe Road, Great Barr, Birmingham, 22A.
Lloyd, J. S., P.O. Box No. 5622, Johannesburg, South Africa.
Noble, J. W. I., "Holmwood," 208, Harrogate Road, Chapel-Allerton, Leeds. 7.
Rhodes, D., 3, Surrey Street, Latchford, Warrington, Lancs.
Walter R. F., 16, Dryden Street, Canterbury, E.7. Victoria, Australia.
Wright, D. G., 10, Torrington Drive, Potters Bar, Herts.

CHANGES OF ADDRESS

Ainscough, E., 270, Warrington Road, Goose Green, Wigan, Lancs.
Cairns, W. M., 4, Bankfoot Place, Glasgow Road, Strathaven.
Chambers, Glyn (Potty) 80, London Road, Knebworth, Herts,

Hall, K., 38, Albert Road, Stetchford, Birmingham, 33.
Myatt, P., c/o 17, Gloucester Road, North Harrow, Middx.
Waye, C., 6, Rollswood Road, Welwyn, Herts.
Woodhouse, J., 5, Sea Mill Way, Worthing, Sussex.

FOR SALE: Bent frame, Webb girders, 2 petrol tanks, honeycomb radiator, gearbox, clutch, undertray, 2 Pilgrims, 2 mag. platforms, engine covers, 600 c.c. block and pistons, rods, cranks and flywheel. £14 the lot. Buyer collects. Year unknown but pre-war. Roberts, 156, Falsgrave Road, Scarborough, YORKS.

FOR SALE: Left hand 1¾ in. pipe, chrome going but very sound £2. Narrow Flyer petrol tank complete with caps £2. Original Clubman's Special chain oiler complete with clips and taps £2. Early 3/speed Super undertray (small clutch) perfect, 30/-. 1919-24 2/speeder block complete with cast iron pistons, condition far from perfect but running well when dismantled, further details on request, £4. Pair of Dowty forks just removed from Clubman's Special, although believed from Panther, complete with late Scott wheel to suit. Nick Sloan, Spares Registrar.

FOR SALE: R/H Replica longstroke crank 50/-. New saddle cover specially made by Terry for late vintage Scott type Lycett saddle, 30/- perfect. Pair 5 in. dia. Miller headlights late vintage, ex-Panther excellent condition—suitable for "Reynolds Special" type layout. Long undertray and K/S crank still available. Geoff Lee, Editor.

FOR SALE: Carburettor with intake-elbow, twist grip and cable, also special clutch removing tool, for Scott Cyc-Auto. 5/- or exchange. H. Harrison, 7, Moorfield Avenue, Ealing W.5.

FOR SALE: 1959 Scott. Ex- G. Milnes, two owners only, genuine 11,000 miles. £80 o.n.o. H. H. Williams, 26, Adwy'r Nant, Bethesda, N. Wales.

WANTED: Tank for 1926 2/speed Flying Squirrel (as per illustration on page 6, Scott Instruction Book). Brampton bottom link forks (1932) complete with wheel or hub. Tank filler caps, screw-on, approx. 2¾ in. dia., 1927-30 Flyer tanks. W. J. Hynds, 21, Kildare Street, Ardglass, Co. Down, Northern Ireland.

WANTED: Right hand cover for 1929 3/speed Super. B. E. Moore, "Brandywell," 9, Lincoln Gardens, Claydon, Nr. Ipswich, Suffolk.

WANTED: Gearbox tray, outrigger bracket, bearing, gears, sprocket etc., for 1950 Scott. Robert Kerr, 4, Urmson Road, Liscard, Wallasey, Cheshire.

WANTED: Information required regarding Engine No. EXP/MI (498 c.c. short stroke). W. Land, "The Bungalow," Kayle Lane, Southam, Cheltenham.

WANTED: A copy of "The Book of the Scott" also other general literature about Scotts. C. Hough, c/o 22, Golders Green Crescent, London, N.W.11.

WANTED: 7 in. twin-sided Scott front brake hub end-plates, state of linings does not matter, also alternator case end drive. Arnold Moppett, 979 Yardley Wood Eoad, Kings Heath, Birmingham 14.

WANTED: Rear stand and clip. Roberts, 156, Falsgrave Road, Scarborough, Yorks.

WANTED: Single down tube 3/speed machine or late open-frame 2/speeder. Myatt, c/o 17, Gloucester Road, North Harrow, Middx.

WANTED: For Scott 1926 Super, long type gear lever and gear shields, your price paid. F.O.C. if you need it, 1925 and prior Scott layshaft. C. F. Whitlock, Middle Lane, Headley Heath, Birmingham 30.

WANTED: 1928 3/speed Super, any condition. Nick Sloan, Spares Registrar.

WANTED: Binks carbuettor as advertised in the Dec. issue. J. Ellis, Celbridge, Co. Kildare, Eire.

Still clearing out sheds of Scott parts—send for list. G. Stevens, "Pen-y-Graig," Coed-y-Parc, Nr. Bethesda, Caerns. Tel.: Bethesda 512.