

RIDER TO

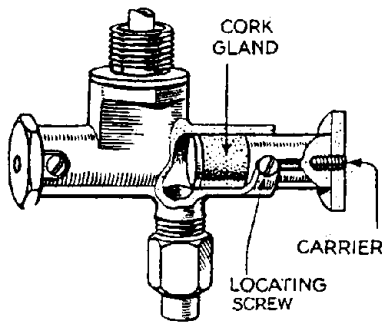
RIDER No. 15.

Stopping the Seepage

Curing Leaks from Various Types of Fuel Tap : More on Loosening Screws and Bad-weather Riding

By VIC WILLOUGHBY

ONE of the worst enemies of fuel economy is a leaking petrol tap. Unless a coloured petrol is used or the leak is so bad as to cause dripping, the constant wastage goes unnoticed. But inquiries received from time to time show that even when leakage is detected many riders and garages are unable to deal with it, and quite a number of accessory stores do not stock the necessary spares. The confusion was aggravated a year or two ago by the introduction of a new type of Ewarts Evertite tap in which the cylindrical cork gland can-



On old-type Ewarts taps the carrier is adjustable to compensate for wear on the gland

not be adjusted for wear or renewed independently of the plunger; and the older patterns have since been brought into line.

Made from brass pressings dull chromium plated, Ewarts taps are probably the most widely used. In the single-level pattern, the old type has a knurled-end plunger which you pull to turn on the petrol. The cork is mounted on a flanged carrier screwed into the plunger from the inner end, while the plunger is located in the tap body by a grub-screw engaging with a straight slot. The two-level pattern has two plungers—knurled-end for main supply, hexagon-end for reserve.

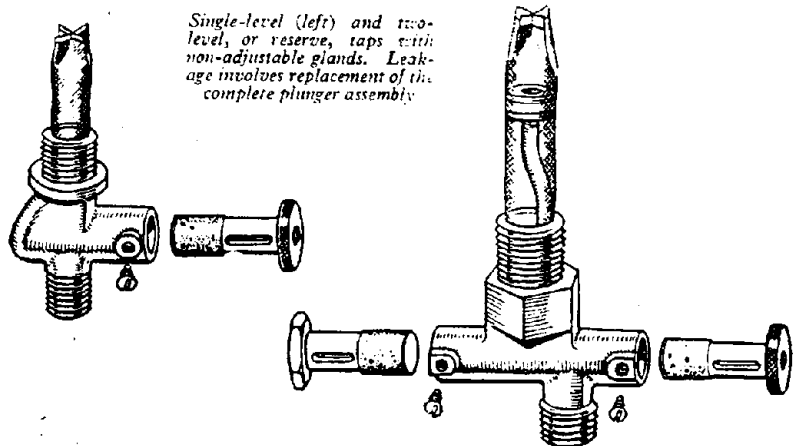
Screwing the gland carrier farther into the plunger expands the cork diametrically, thus compensating for wear; for that purpose there is a screwdriver slot in the outer end of the carrier which should be turned anti-clockwise. I have sometimes found that the slotted end breaks

up when the screwdriver is turned and so an alternative method is to remove the grub-screw (taking great care not to lose it), after which the plunger can be turned clockwise one complete revolution on the carrier or the whole assembly can be removed from the body for adjustment by hand.

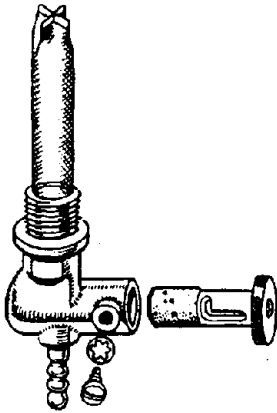
Incidentally, the glands are made of Spanish or Portuguese cork because of its resistance to crumbling. Nevertheless, they should always be smeared lightly with Vaseline before fitting to the body; needless to say, you must take particular care not to push any blobs of Vaseline

into the tap, otherwise they might block the carburettor jet. When adjustment no longer cures leakage a new gland (costing 2d) must be fitted after the carrier is unscrewed from the plunger.

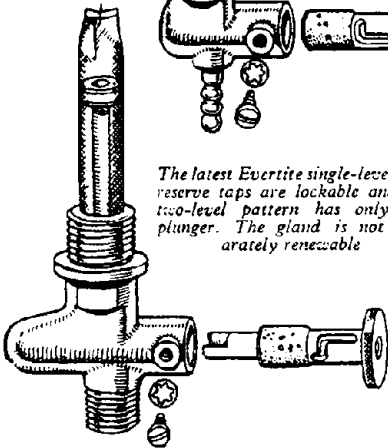
A good guide as to the adjustment of the carrier is the action of the plunger: the movement should always be slightly sticky, not loose. Quite apart from leakage a loose plunger often vibrates closed in use. Even more annoying, the reserve plunger may vibrate open so that you are eventually stranded with a dry tank. On some machines which are subject to high-frequency vibration, the head of the



Single-level (left) and two-level, or reserve, taps with non-adjustable glands. Leakage involves replacement of the complete plunger assembly



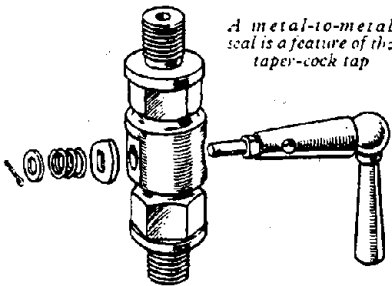
The latest Evertite single-level and reserve taps are lockable and the two-level pattern has only one plunger. The gland is not separately renewable



carrier eventually wears the bore of the body so that neither adjustment nor gland renewal restores the sticky action or cures leakage. In that case the only remedy is a new tap.

In the latest types of Evertite tap only one plunger is used for both single-level and two-level patterns. The locating slots in the plungers are of more complicated shapes and on the single-level tap you turn the plunger to lock it after pulling it on. With the two-level pattern the operating sequence is pull on, turn for reserve and pull to lock.

Because of the turning action the screwed adjustment is abandoned and the plunger, carrier and cork gland form a single, indivisible unit. As mentioned earlier, this method of construction is now used on the older-type taps as well, and they can be distinguished from the adjust-



A metal-to-metal seal is a feature of the taper-cock tap

able variety by the absence of a screw-driver slot in the outer end of the carrier. Internally the taps are made to fine limits and should give good service over long periods. But obviously when leakage does eventually occur the cure is to replace the

complete plunger assembly. The cost is 2s (knurled or hexagon) for the older-type taps, 2s 6d for the turn-to-lock type or 3s 3d for the pull-to-lock reserve tap.

If you have difficulty in obtaining spares for Ewatts taps, an inquiry to the sole distributors, P. B. Snowdon, Ltd., Precision House, 95, Homesdale Road, Bromley, Kent (telephone Ravensbourne 6606-7), will bring the name and address of your nearest stockist.

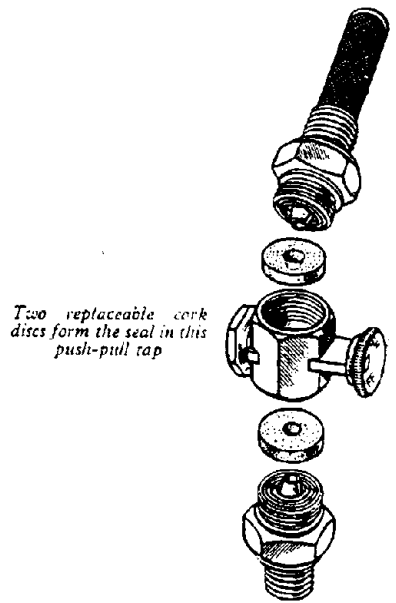
There is another type of cork-seating tap in popular use; it has a double-ended flat slider, the hexagon end being pushed to turn the petrol on and the knurled end to turn it off. Two flat, round corks form the seal, one above the slider and the other below. No adjustment is provided and if leakage occurs you should first ensure that the upper and lower parts of the tap are screwed home fully in the body. If leakage persists the corks must be renewed, again smearing the faces with Vaseline. Do not damage the hole in the slider for a burr or sharp edge on it will tear the corks.

Finally, we come to the taper-cock tap which has an all-metal seating and is usually found only on racing or high-performance models. So long as it is fitted with a gauze filter, as all taps should be, it is unlikely to give any trouble. If it is clean, sound and correctly assembled it should have a slightly stiff action. A quick remedy for looseness is a light tap on the rounded end of the cock and, in the unlikely event of its having worn enough to cause leakage, it may be lightly ground on to its seating with a smear of fine grinding paste and oil. Obviously, all traces of abrasive must be washed away when the job is finished.

Now for some odd points arising from earlier articles. In our January 15 issue I described dodges employed to loosen the screws holding the end cover on the gear box on my 99 Norton when they defied the ordinary use of a screwdriver. You may recall that extra leverage was obtained by using an adjustable spanner on the flat of the screwdriver shank, and that screws which still proved obstinate were jarred free with a hammer and brass drift. Some readers have written to say that the real cure is to use hexagon-socket screws. Granted, but I was undoing the slotted screws used by the makers—and undoing them for the first time since the machine was built 2½ years earlier.

Hexagon-socket screws can, it is true, be done up really firmly and undone again without the slightest difficulty or risk of mutilation. But if, for that reason, you use them to replace ordinary screws for the timing cover, chaincase or gear box, do remember to keep a hexagon wrench of the right size in the tool box or you may find yourself in a worse predicament than mine.

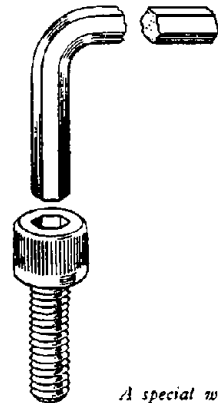
Since I wrote some weeks ago about riding in fog and on ice there have, to my dismay, been all too many opportunities for practising the techniques, often both together. It was on a morning both foggy and icy that I swept the thumb of my riding glove across the front of my goggle lenses to wipe away the film of moisture—only to find that the moisture both on the lenses and the gloves was frozen. My immediate reaction was to suck the thumb



Two replaceable cork discs form the seal in this push-pull tap

vigorously and wipe again, and the result was very effective—but I cannot recommend the taste! At traffic halts, of course, I was able to unfreeze the thumbs by the more dignified method of screwing them in the other fist.

I think my greatest difficulty in this winter's long, cold spell was to distinguish between road surfaces which were merely damp and those on which the moisture had frozen into black ice. Different stretches of the same road have varied enormously in safety though looking almost identical; the best check has been to lower one foot on to the road surface to feel for grip. But when I am uncertain I have only one policy: to treat the surface as if it is ice covered. It is true that occasionally another rider or driver then overtakes me. Although that may mean his guess about the surface is better than mine, it may also mean that he is taking a risk I am not prepared to take—there have been occasions when I have stopped a little later to help such a rider to his feet. So when you are doubtful of the surface and someone passes, just let him pass.



A special wrench is used for turning hexagon-socket screws