proposal fails to recognise and correctly address the root cause of this new problem.

Quick-releases do not open by themselves. They are made with an over-centre action which effectively locks them into position. (In this sense they are even safer than ordinary wheel nuts, which give no visible indication of their degree of tightness and can indeed rattle loose.) Except in those cases of poor quality components, or where a quick-release may have been tampered with by a third party, quick-release front wheels are jumping out because riders simply are not adopting the correct procedure for locking them into place.

Experience of explaining quick-release hubs to the mechanically disinclined has shown me that someone coming across one of these for the first time naturally tends to assume that it is a kind of wing-nut. They simply hold the nut and spin the lever around (either in the locked or unlocked position) until it gets stiff. In such a condition the wheel is not safe even with a secondary device to stop it actually falling out.

The correct procedure is, of course, to hold the lever in the 'open' position and tighten the nut lightly, so that a hard push (but not excessive force) is required to fold the lever over to the 'locked' position. All that should be required to get the wheel in and out, after initial adjustment of the nut, is to flip the lever outwards and over.

The most common types of secondary retention devices, however, make you unscrew the lever by several turns before the wheel can be got out. Which means you then have to fiddle around getting the right adjustment again every time you put it back. This repeated unscrewing and re-fastening comes naturally to those who are in any case labouring under the delusion of the 'wingnut' method, and confirms their mistake: ensuring that they will always merely spin up the lever and *never* ride with their front wheels securely located. It also makes converts to the hazardous 'wingnut' method of those who *have* been shown the correct procedure, but only half remember it. Even for those of us who *do* know how to do it right, the opportunities for getting the adjustment wrong, and either damaging the bike or riding with a loose wheel, are unnecessarily multiplied.

Of course, these devices also convert quick-release into not-quite-so-slow-release, but it is mainly because of the counter-productive safety side-effects that I feel the correct function of this mechanism needs to be guaranteed. We need a clause to the effect that a quick-release wheel can always be removed and replaced without disturbing the setting of the adjuster nut. If the ignorant need also to be protected by secondary retention devices, then only those which will also meet this condition should be permitted. A few such devices *do* exist. These, moreover, are the only type which also give a degree of protection in the event of failure of a sub-standard quick-release skewer. (As it happens, just such a case – involving a very shoddy made in India replacement item – was brought to my notice only the other week.)

I have my own ideas as to what is required. First and foremost, the bicycle should be provided with a set of clearly illustrated instructions regarding the correct operation of the quick-release. Secondly, it occurs to me that users would be less inclined to use the lever incorrectly, as a wing-nut, if the adjustment could be locked in position. At the moment these adjusting nuts are secured only by light friction, which is sometimes not enough to stop them turning slightly as the wheel is removed or replaced. At the very least a minimum figure needs to be put on this frictional torque, but some means of locking the adjusting nut would be better: both to deter incorrect operation and to avoid inadvertent loss of adjustment.

'First and foremost, the bicycle should be provided with a set of clearly illustrated instructions regarding correct operation.'

Jaws III

Think about it: you have engaged low gear on your double or triple chainset, baring a row of sharp, oil-blackened teeth, which revolve only inches from your naked leg; why don't they bite you right now? Answer: because your foot stays on the pedal.

Multiple chainsets have been with us for half a century. However, while I suppose that there must have been a few incidents of tooth gouging in that time, it is only very recently that anyone has suggested that this is a problem. Although the sports bike's double chainset is equally culpable, this new problem invariably arises with that fateful combination of inexperienced rider plus mountainbike. Foot slips off pedal, foot hits road, unguarded chainwheel runs into back of leg.

The consumer safety establishment think that all multiple chainsets would be safer equipped with an outer disc, beside and slightly larger than the outer chainring teeth. They are probably right, but try telling that to Shimano and Campagnolo. Wait a minute though: the chainring can only get at the leg if the foot comes off the pedal; these incidents invariably begin with a slipping foot and a mountain-bike; what's new about mountain-bikes compared to virtually all previous generations of multiple chainset bicycles? Answer: no toeclips.

It's a fact. Prior to the mountain-bike era it was rare to see a front derailleur on a bicycle without toeclips. Even touring bikes (upon which triple chainsets were standard equipment before anyone had even dreamt of mountain-bikes) usually came with toeclips. Toeclips and other foot-retention pedal systems are, however, becoming a more common feature also of mountain-bikes in the upper price brackets: the very models for which it would be impossible to find an equivalent quality chainset equipped with a disc.

I feel that the bike-buying public will be adequately protected if discs are required on multiple chainset bicycles that are *not* equipped with devices to retain the feet on the pedals (e.g. toeclips). The fact that those unacquainted with them find the very idea of toeclips off-putting will ensure that manufacturers choose to fit discs to the overwhelming majority of bicycles. It may be argued that toeclips can easily be removed: well so can a chainring disc. This exception will merely keep additional paraphernalia off bicycles that do not need it, and for which it cannot readily be provided.

Killer mudguards

I have in the past talked about front wheel lock-up and how this can be caused by a collapsing mudguard. The type of mudguard most prone to collapse and jam the front wheel is, unfortunately, on the increase again and so are the associated accidents. Perhaps because of the diminishing proportion of bicycles sold with mudguards, none of the trading or consumer safety organisations seem to have picked up on this point.

The sequence of events by which the mudguard locks the wheel begins with the lower end of the guard catching against the tyre, either by entrapment of a stone

1991 diary dates

24-26 August **Mildenhall Dairytime Rally**, Mildenhall, Suffolk. Details: John Freiyer, Grimble Cottage, The Street, Chedburgh, Bury St Edmunds, Suffolk IP29 4UH; see pp 12-13.

2 September **Closing date for nomination of candidates for CTC Council**. See p 13.

8 **Portsmouth Friends of the Earth Transport Conference**: 'All change for the 21st Century'. Speakers include Bert Morris (AA), Roger Higman (FoE), Colin Graham (CTC). Cost £3.50 including lunch; bookings to: Derek Bower, 41 Allens Road, Southsea, Hants PO4 0QB; tel (0705) 755757.

14 **CTC Shop Summer Bargain Sale**, 10am to 4pm. See CTC Shop advertisement pages for details; *note that this is a Saturday.*

20-22 **Blackmore Vale CC Springhead Rally** at the Springhead Trust, **Fontmell Magna**, on the edge of Cranborne Chase, near Shaftesbury, Dorset. Rides during the day, games night, dinner and country dance in the evenings. Accommodation in hostels or camping. Details: Mrs K. Gill, The Flat, Millbrook House, Fontmell Magna, Shaftesbury, Dorset SP7 0PA (large sae, please).

5 October **Joint CTC/CCN Autumn Planning Conference**, Queen's Walk Community Centre, Nottingham. Details, p 15.

12/13 **CTC Tour Leaders' Reunion, Wilderhope Manor YH**. Details: David Wey, CTC HQ.

12-26 **Frank Patterson exhibition**, Summer's Place, **Billingshurst**, Sussex. Details: see p 12.

19 Public day, 9am to 6pm, **Bicyclexpo 91** cycle equipment show at Alexandra Palace, north London. Details: Bicyclexpo 91, 10 Townley Road, Dulwich, London SE22 8SW, enclosing large sae. (Trade days are 20/21 October.)

26/27 **Cambridge Cyclists' Weekend**. Rides Saturday and Sunday, slide show on Saturday evening – 'Between Seasons in Lombardy' by Chris Juden. Details: George Rich, 26 Springfield Road, Cambridge CB4 1AD; tel (0223) 357511.

2 November **CTC** Leisure and Countryside Committee **Conference: 'Leisure cycling in the countryside'**, Edale YH (see p 28).

2/3 **South Bucks** CTC **Golden Beeches** weekend. Saturday, Sunday rides; Saturday slide show. Details: Audrey Hughes, Beech Hanger, Nags Head Lane, Great Missenden, Bucks HP16 0HD; tel (02406) 3446.

7/8 **'Providing for Cycling'** a conference for planning professionals, University of **Leeds.** First day's topic is Planning, second day's Design and Experience. Details and application forms: Hansa Patel, Department of Continuing Professional Education, Springfield Mount, Leeds LS2 9NG; tel (0532) 333235/ 333241.

19-22 **VeloCity** International Bicycle Conference, **Milan**. Information: VeloCity 91 Secretariat, c/o ICI (att: Felice Accame), viale Gorizia 22, 20144 Milano, Italy; tel 010 39 2 89406254; fax 010 39 2 89404192. The **Milan Cycle Show** is on at the same time.

etc, or simply a vibration shaking the side of the guard across the tyre. Alternatively the guard can be dragged into the tyre by something caught in the spokes and snagging its stays (e.g. a stick kicked up by the wheel running over one end of it – hint: if you cannot avoid running over a stick, run over the middle of it).

Once it has caught against the tyre, the tail-end of the mudguard tends to be carried around by the wheel, collapsing the intervening section of mudguard, until brought to a halt at the back of the fork crown. This effectively stops the bike but not the rider!

This sequence of events can best be interrupted by ensuring that the mudguard is able to resist the moderate frictional forces which can easily be developed between its lower end and the tyre. Traditionally styled metal mudguards are usually plenty stiff enough to resist collapse in such circumstances. Plastic mudguards, on the other hand, are much more flexible and easily bow outwards if you pull the bottom end upwards. It is customary, therefore, to equip front plastic mudguards with an extra pair of stays. This second pair of stays anchors the mid-point of the curve and prevent it bowing outwards. It requires a very much greater force to collapse a front mudguard thus equipped with two pairs of stays.

These accidents almost invariably involve a plastic front mudguard with only a single pair of stays. The situation is no doubt made worse by the much tougher (not stiffer) type of laminated plastic now used. This simply bends where a more brittle plastic would have shattered and fallen in pieces out of harm's way. Because of the peculiarly resilient properties of these 'unbreakable' mudguards, they are quite capable of bending double and then snapping back into reasonably good shape – so that only those who know exactly what to look for will have any clue to their part in the proceedings. I suspect that they may be to blame for many of those mysterious accidents of the: 'he simply fell off' variety.

A mudguard collapse test would sort out the wheat from the chaff, but other organisations will need convincing that there is a problem. I am therefore building up a dossier of evidence for presentation to the BSI, so if you have ever suffered or witnessed such an accident please write to me. Meanwhile, I advise you to reject plastic mudguards with only one pair of stays, and ensure that the lower end of *any* mudguard is clear of the tyre when pushed sideways across it.

What you can do about it

You can air your concerns regarding the content of any British Standard by writing to: BSI, 2 Park Street, London W1A 2BS. Remember to quote the number of the standard, in this case BS6102 part 1 – for which the committee secretary is Mr D B Wakeford. You do not have to agree with me of course, and if you would like your own copy of the current draft revision of this standard they will be obtainable from: BSI, Linford Wood, Milton Keynes, MK14 6LE (tel. 0908-221166).