

trail & track

AUSTRALIA'S OFF-ROAD MOTORCYCLING MAGAZINE

June '77 - 80 c

MINI SHOOTOUT

Part 1

Camping on
the cheap

Lectron
Carbys

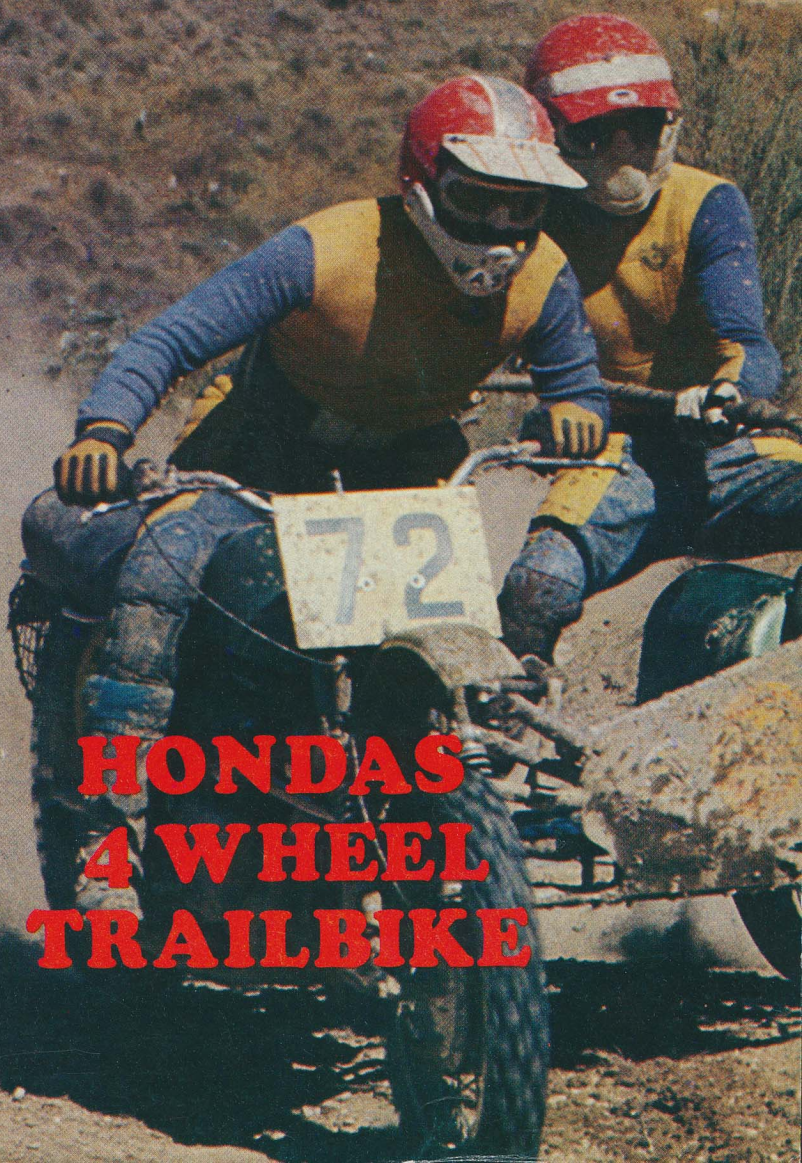
Peter Paice

Honda
500 Trail

SCOOPS

YAMMYS
IT250
ENDURO

HONDAS
4 WHEEL
TRAILBIKE



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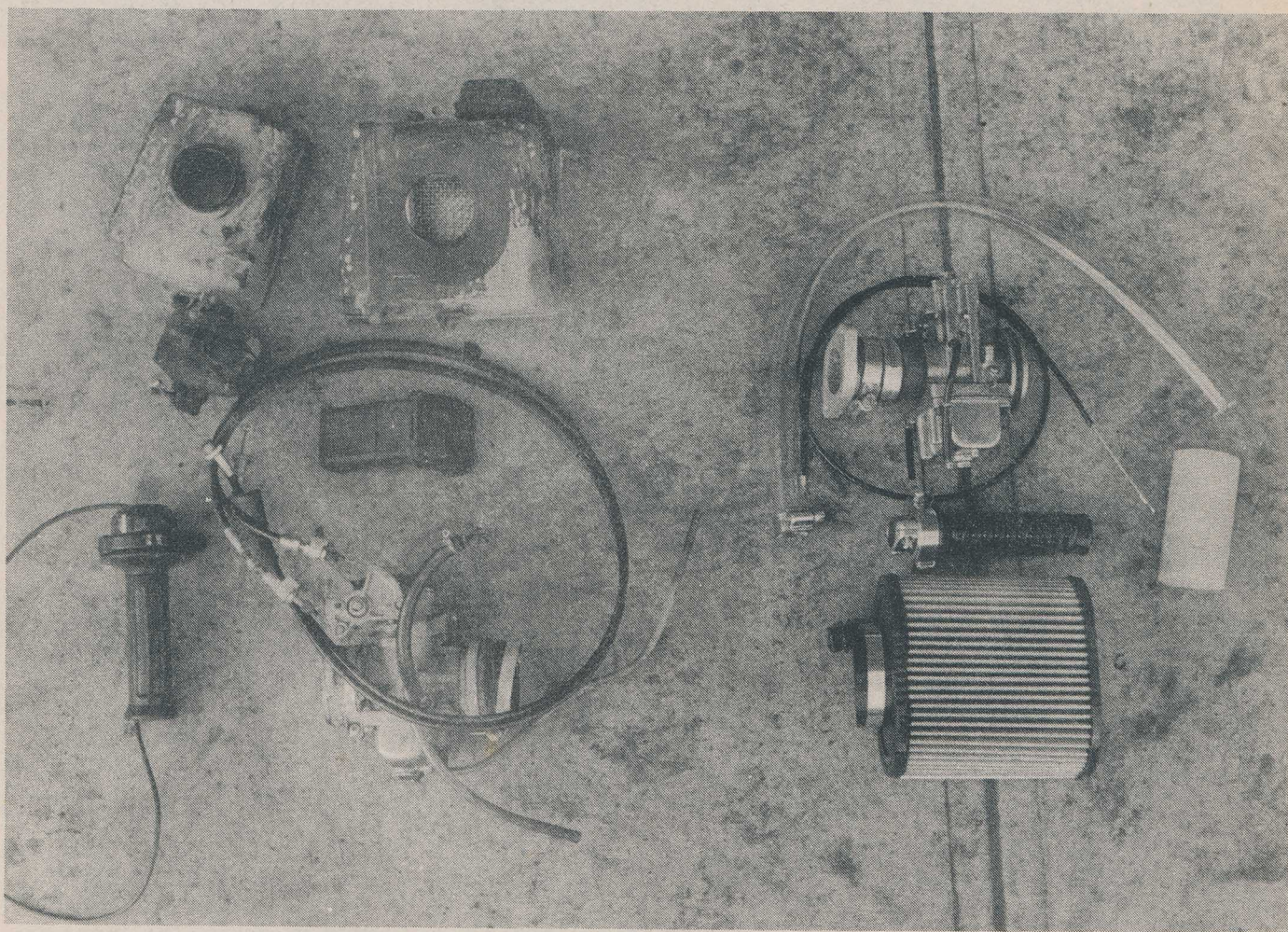
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Cover shot: Ron Parker and Daryl
Howes (Norton 850 Wasp) power up
the hill at Monza, Victoria. Watch for
our special sidecar feature next issue.

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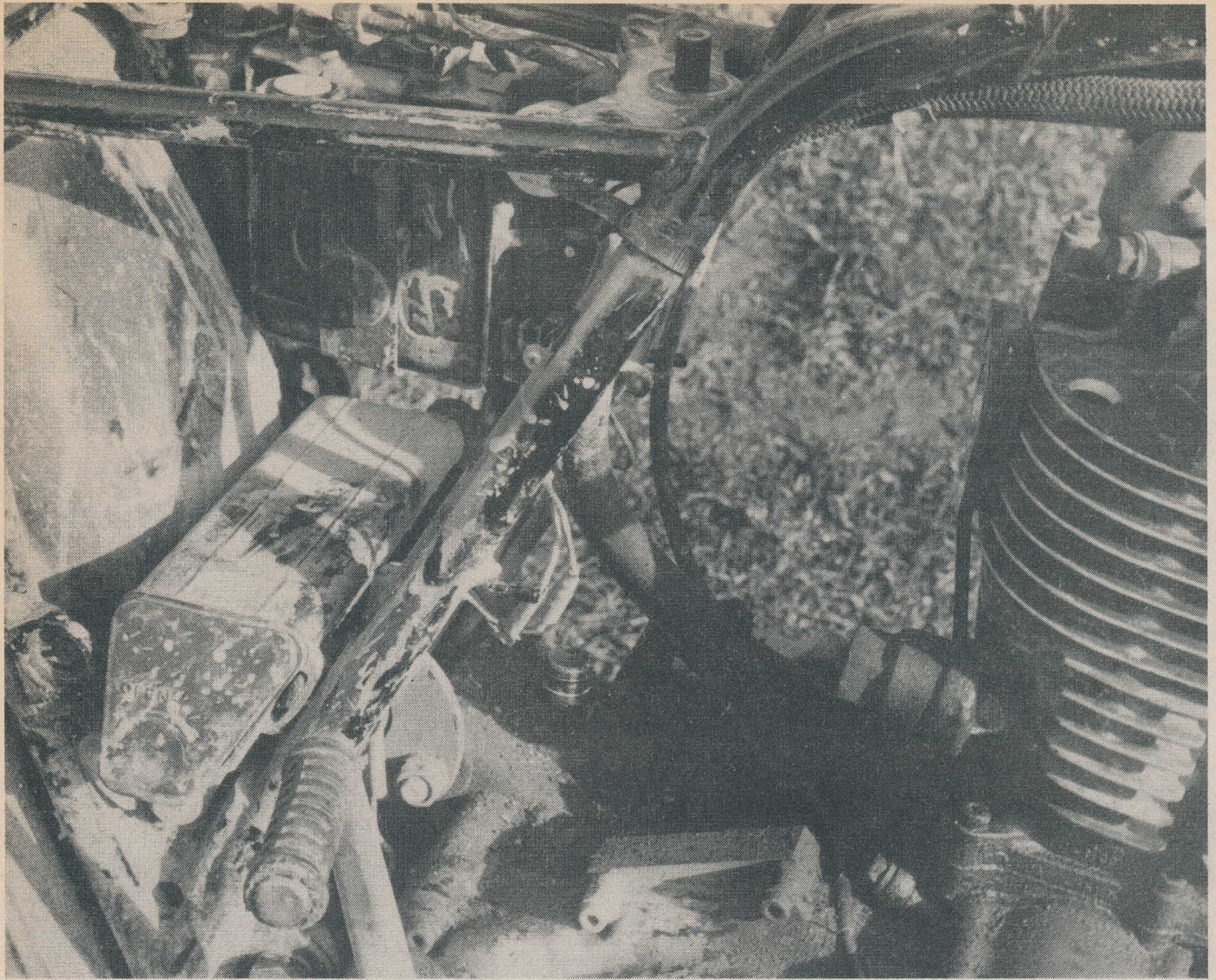
PRODUCT TEST

XT500 ELECTRON CARBY KIT



Old and new system.

We fit the new flat slide carby to our XT to find some good results.



With the old carby and airbox removed there's a lot of space available.

We first heard about Lectron carbies when Road Racer Kenny Roberts used them on the 750 Yamaha he rode at Daytona this year.

A little investigation showed them to be a flat slide carburettor with no jets. That's right no jets. The only interchangeable part for tuning is the needle.

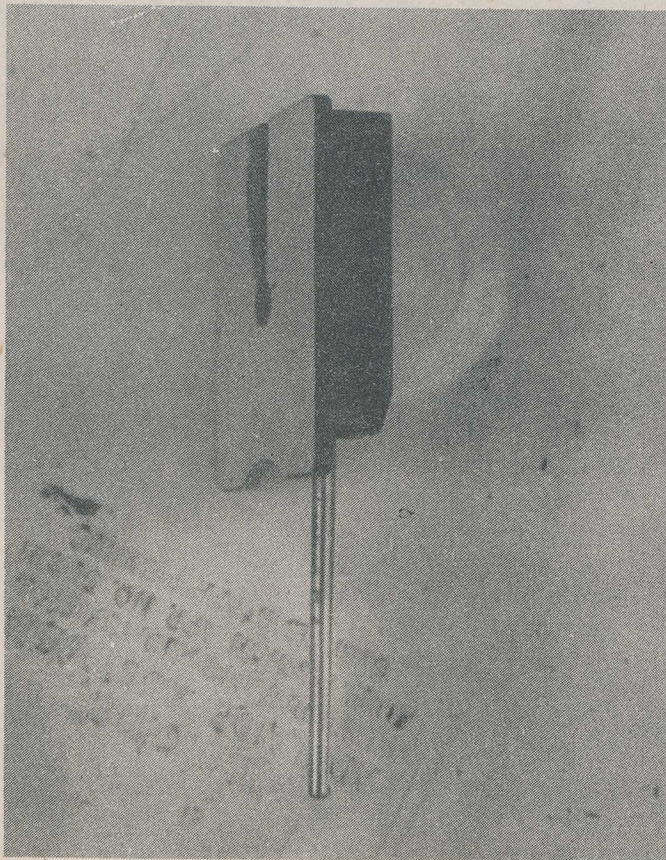
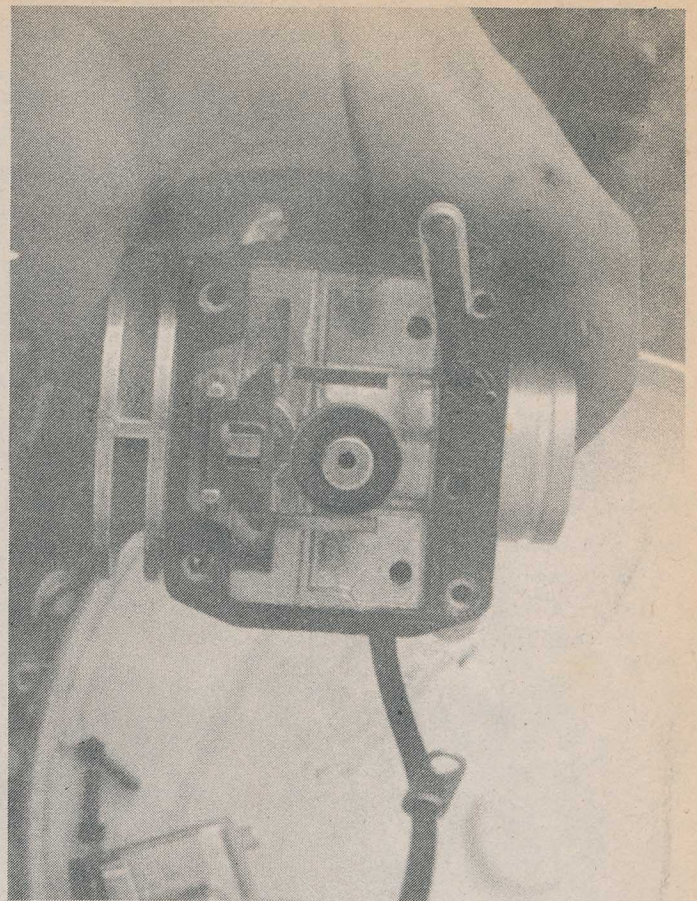
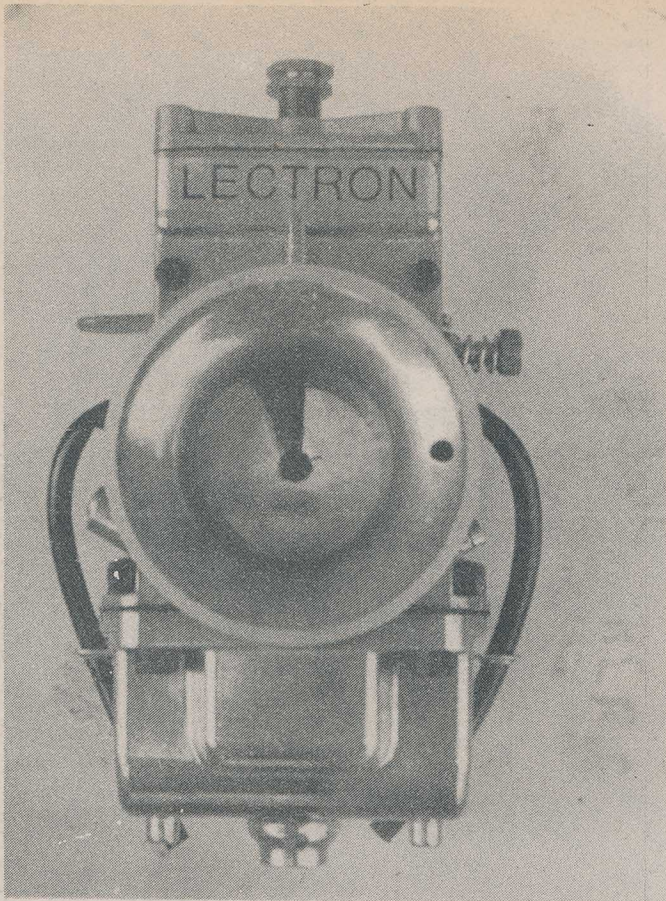
For people who don't know we'll give a little background on carbys.

A carburettor must mix air and fuel to a ratio of about 15:1. Basically it does this passing the air over the fuel quickly, so the fuel is sucked up in a spray. The fuel is kept in a bowl at the bottom of the carburettor. The air passes through the "venturi". The diameter of the venturi is meased, and this is how we determine the size of our barby 28, 32mm etc.

Anyway, as the air is sucked quickly through the venturi it sucks up fuel from the bowl. The bowl is separated from the venturi by the main jet, so the bigger the main jet, the more fuel that will be sucked up.

We regulate the amount of air, and therefore the amount of mixture going into the engine using a slide in the venturi. This is opened and closed by the throttle. As the throttle is closed the venturi is made smaller, and so the air being sucked in travels faster and sucks up more fuel.

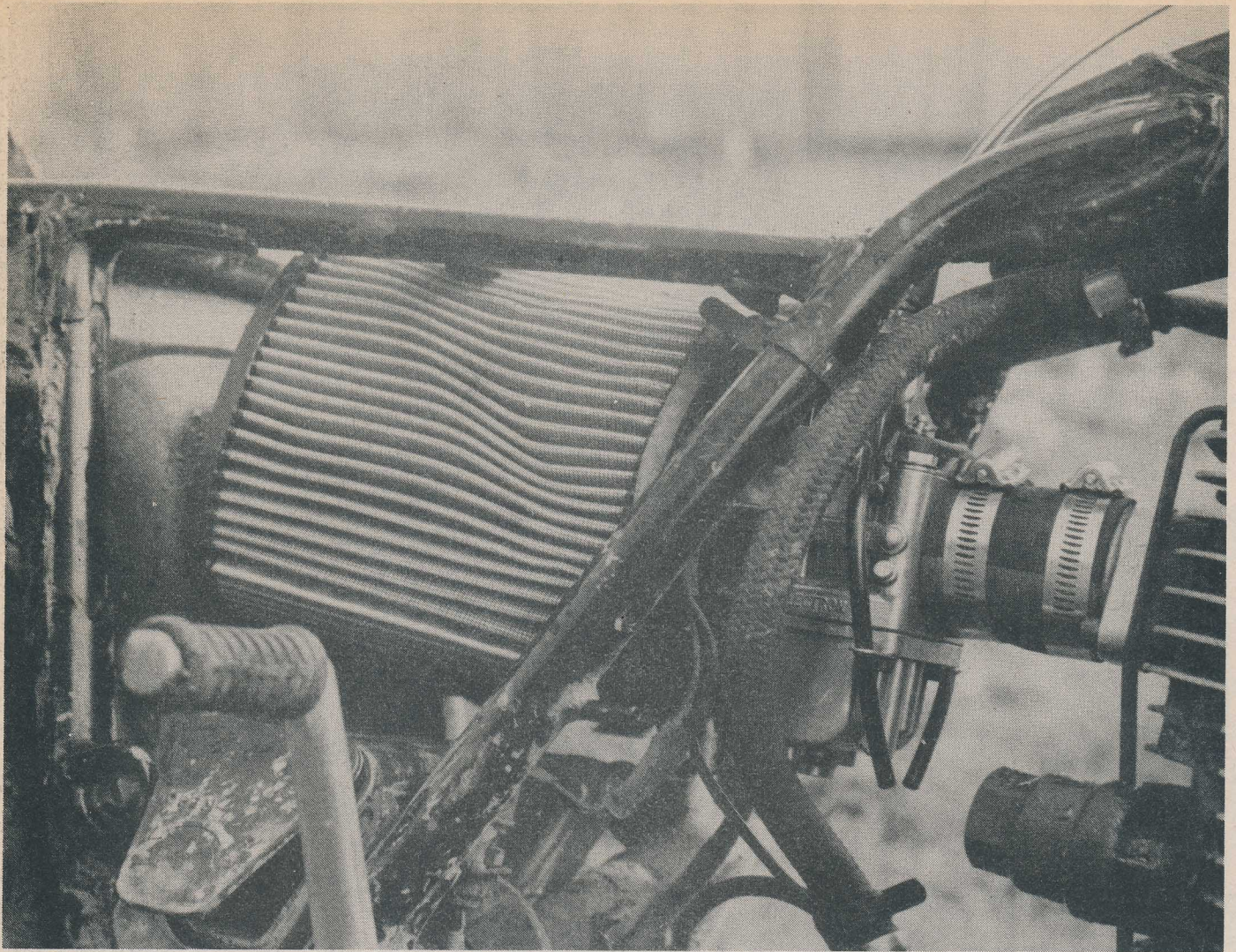
So because we can regulate the air flow, the fuel must be regulated at the same time, and this is done using a needle hung from the throttle valve or "slide". This needle is



Above left: The carby complete. Note the cutaway is in the centre of the slide.

Above: The simple float chamber. No jets at all.

Left: The flat slide. Barely visible is a small notch at the bottom of the needle.



tapered, and slides up and down inside the needle jet. Raising the needle in the slide allows more petrol in, and therefore richens the mixture.

Until now tuners have altered the main jet, the needle jet, the needle, and where the needle sits in the slide, plus the slide itself (cutaway) to alter the mixture at the various stages of throttle opening.

Now with the Lectron carby all that needs altering is the needle. We tried a Lectron carby kit from Sport and Road on our XT500. The kit consists of the carburettor, a K and N air filter, inlet adapter, throttle assembly and replacement crankcase breather.

We began by removing the Mikuni, air box and throttle.

Bolting the Lectron back in its place was fairly straight forward, except the top of the carburettor is on a collision course with the rear petrol mounting point. It was a tight fit, but eventually the throttle cable was made to run, along the upperside of the frame backbone/oil tank.

The K & N airfilter was a tight fit too, and had to have a bit of force applied to get it into place. It fitted though. We'd suggest to anyone getting one of these kits to buy at the same time a new manifold gasket, as the old one invariably gets torn when the carby is removed.

The crankcase breather that had the large diaphragm, and ran into the air box was all removed, and replaced with a simpler clear breather and small foam filter.

The XT hadn't been started for 2 weeks when we kicked it over, and without choke it started second kick. With the motor very hot it continually started first kick, which was something that didn't happen before.

We tried the XT over a period of time, with constant running at different revs, as well as acceleration tests, and the Lectron carby was faultless.

We were looking to for flat spots which are caused in flat slide carbys by the slide rattling back and forward. None existed. The Lectron performed faultlessly.

The difference in weight between the stock equipment and the Lectron kit is minimal. Most of the weight being saved by the removal of the large air box.

Power difference was also slight, with the Lectron showing an increase at full throttle because of the different venturi shape.

The Lectron carby, as we see it, is a big improvement from the point of view of ease of tuning, and simplicity.

*Kit supplied by Sport and Road, South Melbourne.
Price \$139.00.*