## Pick a good bike lock so thieves won't

The current energy crises has brought a lot of bikes out into the open, and a lot of bicycle thieves. And while it's almost impossible to protect a bike against a professional, the right kind of locking device will discourage the typical bike thief who is usually an amateur looking for a joy ride.

## U-LOCKS

Shaped like a horseshoe, the U-Lock proved to be the most resistant lock to breaking and picking. All locks tested were covered with a tough plastic to prevent scratching of the bike. U-Locks secure the seat tube, rear tire and front, quickrelease tire to a stationary vertical object. The shape and size allows for easy storage while riding. The top of the U hangs securely from the rear of the saddle.
However, because of their rigidity, U-locks won't stretch to fit around a telephone pole or a tio

## PADLOCKS

Most padlocks today have a case hardened steel body which makes the outside metal tougher than the inside metal. This not only helps resist sawing or cutting, but makes the lock shatterproof; a lock which has been hardened all the way through becomes brittle when smashed.

The padlock which hides a good portion of the shackle provides maximum security from cutting. Also, a "heel and toe" lock works best as it secures both sides of the shackle when in a locked position.

## CABLE AND COIL LOCKS

Cables are convenient - they wrap around poles, posts and tree trunks of various sizes. Weight and cost are reasonable. Cutting into the thicker cables or coils requires several attempts with medium cutters. It's like cutting into metal rope.
Length is particularly important with self-coiling cables. Although


The best advice is to lock a bike, that way it can't "walk away."
they compact tightly for easy storage they do not extend fully when locking a bike. About a foot of length is lost in the curls. Also, the curls make it difficult to thread a coil through the spokes of the wheel, particularly when it's extended around the length of the bike.

All these locks are patterned with twisted steel wires. The thicker the diameter, the greater the number of metal threads and the heavier the guage. Loops formed at the ends
accomodate a padlock. A vinyl covering prevents damage to the bike.

## ONE-UNIT CABLELOCKS AND CHAINLOCKS

This type is more convenient than carrying two separate pieces. The problem, is that they aren't very strong.

The links which attach the chain to the lock were made of inferior material which is softer than the
chain locks themselves.
If you use this type of fastener keep the lock area away from the bicycle's frame and also from the object to which it is being locked. This safeguards any possibility of smashing the lock by hammering it against a hard, immovable object.

## CHAINS

The heavier the chain, the more protection. The best padlock in the world is only as good as the
weakest link in the chain.
Chain links should be casehardened and welded together. Avoid those with links that are merely twisted closed as these can be forced open. Six feet is the ideal length so that the wheels and frame can be locked at the uppermost portion of the bike. Avoid leaving slack in the chain when it's locked as the closer it is to the ground, the better leverage thieves have with bolt cutters.

## Give a used bike close inspection <br> and a few dollars unless a



## Continued from cover.

- Has the bike been in a frame-bending accident? The most common accident damage is a front fork bent slightly rearward. If you spot this damage look elsewhere. Even if the fork looks okay, double-check them by inspecting the headset (steering) bearings. There are two sets,
one at the top and one at the bottom of the frame head tube, and a collision will knock them out of allignknock them out of allign-
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handling and stability. - The wheels are the next most likely source of expensive trouble. Hold the bike so one wheel is an inch or two off the ground and spin the wheel slowly,

watching it pass between the brake and shoes. Does the wheel wobble or have dents? Smooth side-to-side wobbles can be competely fixed (another $\$ 5$ bike shop repair) but not dents in the rim. You'll have to replace the rim at $\$ 20$ or more per wheel.
- Check the crankset Put the bike in L- 5 gear, spin the cranks backward and inspect the chainwheels for roundness. Are any parts obviously bent or mangled? Try to wobble the crankarms both sideways and within their customary plane of rotation. Wobble and of rotais. Wobbe from a looseness can come from a
number of sources within number of sources within the crankset assembly and cost $\$ 5$ to $\$ 10$ to fix, assuming you don't need replacement parts. Parts will cost between a few cents
cotterless crankarm needs replacing. That will cost you more than $\$ 10$
- Inspect the cable and
 brake shoes. Every one that's badly worn means another dollar out of your pocket.
- Inspect the tire for badly worn spots, cuts or sidewall bulges. New tires cost about $\$ 7$ to $\$ 10$, plus a few dollars for labor.
- Do the brakes and derailleurs work as they're supposed to? An overhaul for either system costs \$10 or so. If a mechanism if bent out of shape or broken, you'll need new brakes or derailleurs at \$10 to \$15
 labor.
and rusty, chain is worn out ready.
- Inspect the frame where the seatpost enters the seat tube. Some cyclists tighten the binder bolt too much and damage the seat lug. Make sure this bolt loosens and tightens as it should.
- Test ride the bike. It should feel stable (nohands riding is a good stability test) and have no unexplained noises or quirks. Add up the cost of maintenance you'll need to make the bike ride like new, then haggle over the price.

