

A Non-Threatening Pocketknife for Urban Every Day Carry

Riju Chatterjee

Overview:

This is a conceptual design for a pocketknife suitable for Every Day Carry in urban or semi-urban environments. It is intended to be functional, yet non-threatening and inconspicuous.

The knife uses a traditional lockback mechanism. The blade profile is based loosely on that of Swiss Army Knives, which are typically perceived as largely innocuous. There is an ambidextrous thumb-stud and a deep carry pocket clip, reversible for left or right-handed tip-up carry. Brightly coloured, glossy handle scales and a mirror-finished blade are suggested as part of the non-threatening aesthetic.

Design Objectives:

It was decided that a functional modern pocketknife for everyday light cutting tasks in an urban environment must:

- Lock in the open position to minimize risk of injury due to accidental closing of the blade.
- Be capable of one-handed operation for situations in which one hand is occupied.
- Have a pocket clip for convenient carry and quick retrieval.
- Be equally usable by right and left-handed users.
- Have a blade that is unquestionably less than three inches long, to comply with legal length restrictions associated with urban knife carry in many cities around the world.

In order for the knife to be inconspicuous and appear non-threatening, it was decided that it must:

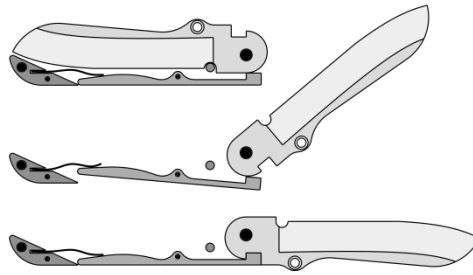
- Have a blade shape that subconsciously registers it in people's minds as a utilitarian tool rather than as a potential weapon.
- Look unlike "tactical" folding knives, which often have extensive ergonomic styling and dark matte colour schemes.
- Conceal the blade completely within the handle in the folded position.
- Have a deep carry pocket clip, so that it is not visible outside the pocket under ordinary circumstances.

A Visualisation of the Final Product:



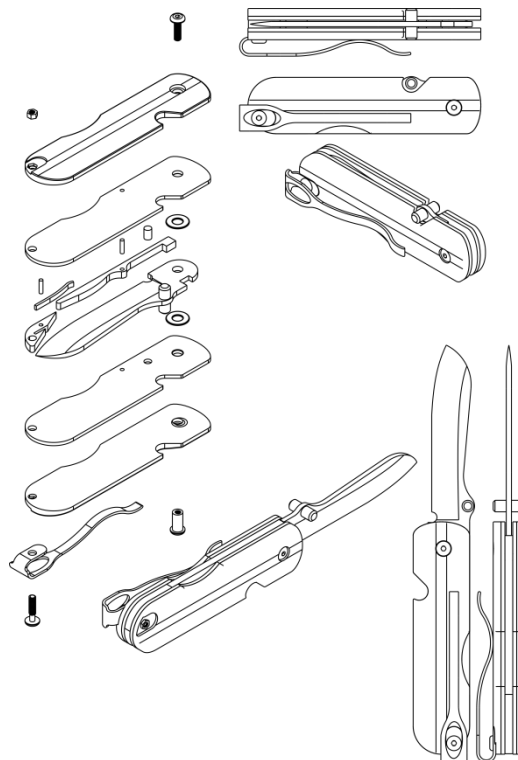
Details:

The locking mechanism: The knife uses a lockback mechanism because this mechanism is suitable for small knives and allows for ambidextrous operation.



The blade: The general profile of the blade is based on that of a Swiss Army Knife, with modifications to accommodate a thumb stud. The blade is 78mm long from the centre of the pivot to the tip of the blade, and 68mm from the beginning of the sharpening choil to the end of the blade. This puts it well under common length regulations for urban carry. There is no ricasso beyond the handle; this maximizes the length of the cutting edge given the limited total blade length. The pivot hole is offset from the axis of the blade to allow the blade to be concealed within the handle in the closed position. Unfortunately in conjunction with the locking mechanism used, this has the result that the handle scales extend beyond the line of the cutting edge in the open position. This reduces the usefulness of the flat portion of the blade for tasks involving cutting against a surface, such as a chopping board; however since this is not a typical use for a pocketknife of this size the compromise is accepted.

Construction: There is a washer, a metal liner and a handle scale on either side of the blade. The entire knife is held together only by the pivot screw and a tail-screw through the back spacer. This is made feasible by the knife's small size and allows for easy disassembly and maintenance. Three pins are held in between the liners: the stop pin, the pivot for the lock lever, and one pin through the back spacer to prevent it from rotating about the tail-screw. An exploded view of the knife is below:



Apart from the pins, fasteners and washers, the knife has eight parts: two handle scales, two liners, the back spacer, the lock lever, the blade (including thumb studs), and the pocket clip. Drawings approximately at 2:1 scale follow. Certain dimensions are omitted to allow for choice of stock materials and/or fasteners.

