

The birth of a new type of tool.

There are countless types of pocket knives and razor blade-types for sale, and although I have tried quite a few, I always felt that most were intended to do many tasks as all-inclusive tools but sacrificed convenience due to size and complexity. Here's a brief rundown of how knives evolved.

In general, a legal-to-carry pocket knife includes a blade that swings out from the handle. Traditional versions require using a fingernail to pull the blade away from its protective body.



Multifunction knives like the classic Swiss Army version added specialty tools to the blades.



However, this got out of hand for those who were not serving military duty.



Then classic knives improved so that the blade would lock in position.



Eventually lever pulls were added to aid in swinging the blade out from the handle.

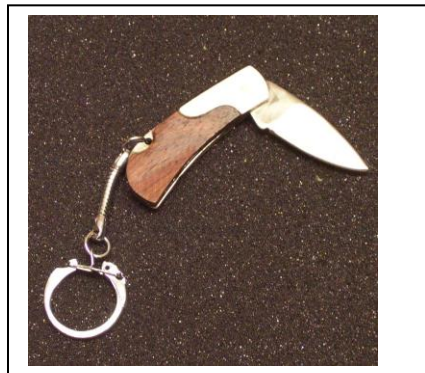
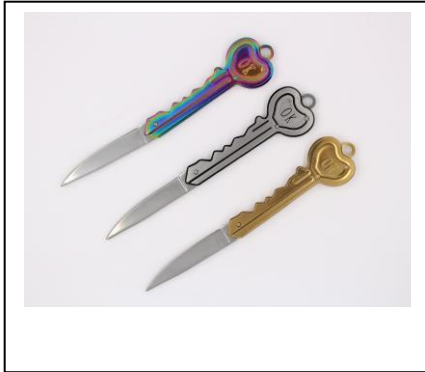


Finger push-and-rotate (flipper) knives ensured a fairly quick blade opening and lanyard holes were sometimes added. These are among the fastest opening knife blades.



Most of these knives were somewhat large and heavy (The average 4-inch long folded knife weighs approximately 70 grams), and while they are often perfect for hunting, fishing, and other outdoor activities, they are not really “handy” to carry in your pocket on a daily basis. As pocket knives became smaller, some were capable of being added to key rings. There are even miniature utility knives with razor-sharp blades.

Many of the razor blade types were great for simple tasks like cutting tape on boxes, and removing products from vacuum-formed packages. Some come with pull chain-style links. Unfortunately, quality and longevity were often sacrificed for low cost.



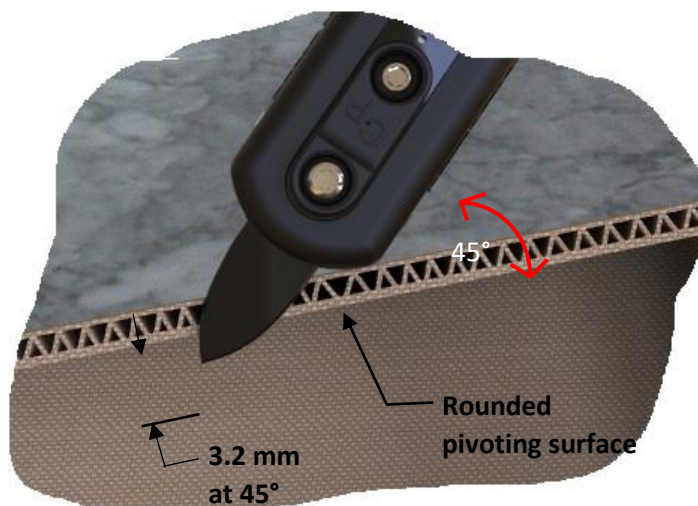
Our goal for a keychain-attached pocket “blade” was to have the following attributes:

1. Light weight and simple for long life
2. Corrosion resistant
3. Scratch and ding resistant
4. Safety-first design that defaults in the closed position
5. Smooth movement within geometry that provides excellent angular support of blade while it cuts through the package or other object’s material
6. Just long enough to enable a good grip, yet not so large that it is intrusive
7. Easily added to a key chain

Introducing the Conceptual Polymer “SULLI BLADE”

Features:

- Rail and carriage motion derived from automation motion machinery/gantries
- 3D-printed Nylon cover and button with durable Cerakote ceramic-based coating
- Cerakote-coated aluminum rail for smooth and straight blade extension
- Double-edge hardened self-retracting hardened steel blade, coated with Cerakote and edge sharpened
- Stainless steel extension spring and spring retainer/carriage stop
- Stainless steel cover-to-rail and button-mounting screws
- Legal in most US states (Check your local laws regarding pocketknives.)
- Front curved geometry allows easily adjustable angle of blade entry through substrate and control of blade depth



Opening a package:

The angle at which you hold the blade body will determine the depth to which the blade will extend into the package. At a 60° angle, the total depth is 11.4mm.

Traditional pocket knife blades can easily damage box contents that are near the lid.



60° angle and increased depth of blade from entry surface

Other uses:



Many types of packages



Gum packs



Bottles with hard to remove seals



Jugs with hard-to-remove seal



Blister package