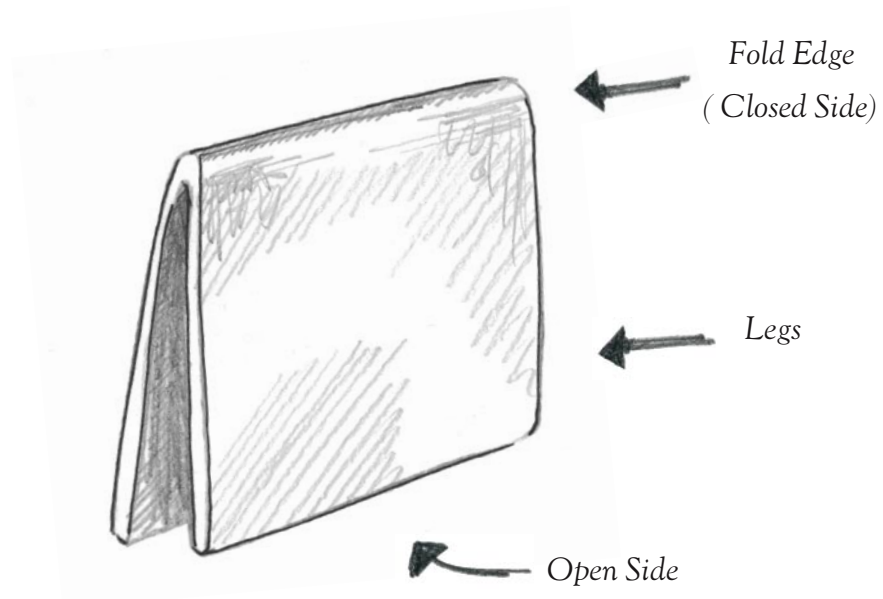




This shape was made with a combination of forged line-folds, one section forged on the open side and the other on the closed sides. In addition to demonstrating what a big difference this simple variable can make, this piece shows the value of combining different types of foldforming.

Naming the Parts

It is useful to have some nomenclature for working with an object. When you describe the parts of something, and give them names, then you begin to understand what you are seeing and you can think about it differently. The names I'll be using as we discuss line-folds are shown in this drawing.



Making a Basic Line-Fold

FOLD

Fold a metal sheet so the fold edge is positioned where you want the line to appear.



FOLD

TIGHTEN

Mallet the folded sheet flat. If this was a piece of paper you were folding, the work of the mallet is like pressing the crease with your fingertip. Now comes a fork in the path—to anneal or not to anneal before unfolding. I usually anneal, but there are specific cases when I choose to retain the work hardness created along the fold. Opening an unannealed line-fold will result in a very high, stiff line-fold that stands up from the surface. Unless you want this specific effect, anneal the metal before opening. Quench immediately in water; pickling is not necessary. It is important to dry all metal well before moving on to the next step because moisture will cause rust on tools.



TIGHTEN

OPEN

Unfold the sheet with your fingers, then press the unfolded metal against a flat surface.



OPEN

CONFIRM

After opening, the fold edge stands up from the sheet as a rounded line. To convert this soft bulge into a proper line-fold, I pound it straight down in a process I call confirming the fold. This can be done with a hammer, a rolling mill, or a hydraulic press. This downward pressure creates three bands of work hardness—one along the top of the fold edge ridge and one each at the point where the legs touch the anvil surface underneath. A planishing hammer with a slightly crowned surface works well for this. Use gentle blows so you don't squash the line out of existence. As you hammer more, the work hardened bands within the sheet push against the still-annealed sections, collapsing them into the dense structure known as the basic line-fold. If the piece is small enough to fit into a rolling mill, that tool can be used to confirm the line, resulting in a very uniform line-fold.



CONFIRM