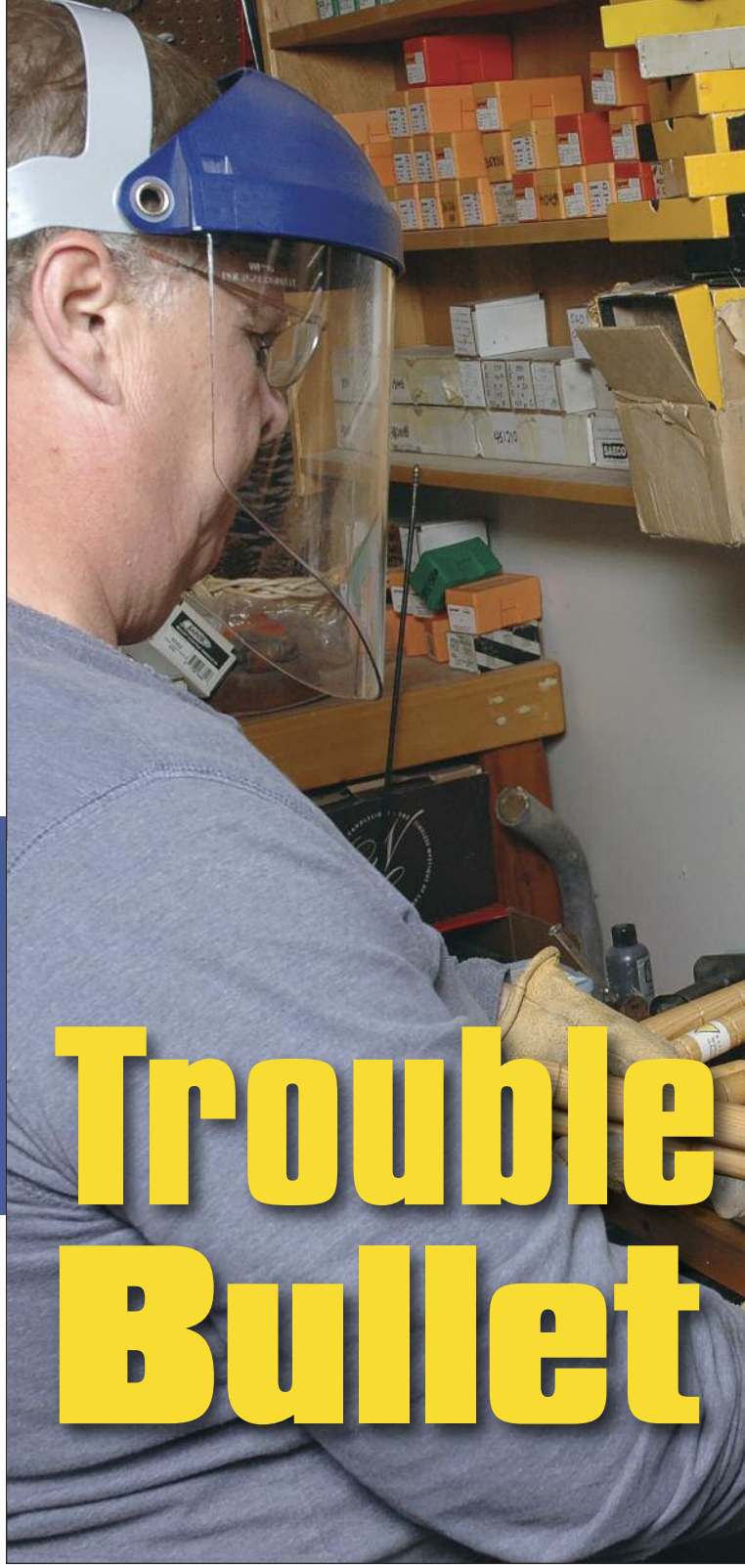
Mike Venturino
Photos by Yvonne Venturino

The week before Christmas 1966, I cast my first bullet. In the ensuing years, I've made perhaps a million or so bullets, ranging in size from .22 to .58 for rifles and .32 to .45 for handguns. My best guess is that I've owned 400 to 500 bullet moulds, collectively made of iron, brass and aluminum cut with one cavity up to six. At this writing there are about 150 moulds on the shelves above my casting area.

Trouble Bullet

Advice Nearly 50 Years in the Making



With that sort of background, readers might be forgiven for assuming that there is nothing new for me to encounter in regard to casting problems. Yet last weekend at a shooting match, another enthusiastic bullet caster related a mould problem that baffles me. He said he owns a double-cavity, iron mould for a lightweight, .45-caliber rifle bullet that will never drop two good bullets simultaneously. If he fills the front cavity first, the rear one will not fill; but if he fills the rear cavity first, the front one will not fill. Logic says the problem must lie with the vent lines between the cavities. Otherwise, I am clueless as to a remedy.

On the surface, bullet casting is a relatively simple operation. It only requires that a molten, lead-based alloy be poured into a mould of the proper shape and size. Then the mould's sprue plate is whacked out of the way and the mould opened so the new bullet will fall on something soft. Simple as that, yet the operation is fraught with all sorts of problem areas.

The cavities might not fill completely, or they might fill completely but all edges of the bullets are rounded with a multitude of wrinkles. Perhaps there are no wrinkles, but the bullets' edges are still rounded. One side of the bullet might have perfectly filled edges, but the other side is rounded. Or the bullet has "whiskers" sticking out from one side's seam or both. There can also be flashing at the seams or on the bullets' bases. The bullets' bases are not level, or they might have tiny studs that cause them to sit tilted on a surface. What causes divots on bullets' bases when sprues are cut? Why won't bullets fall from mould cavities? Why does lead alloy smear atop a mould and under the sprue