

WHETHER THEY are the crinkly white sacks at the local supermarket, the clear sandwich bags in kids' lunch bags, the flimsy baglets that protect newspapers even on sunny days or the bags for the carrots and celery in the produce aisle, plastic bags are ubiquitous. Frozen ravioli, cotton balls, socks, potatoes, jelly beans, pinto beans—you could fill a book with the items that come to us encased in plastic bags. The average American touches plastic bags multiple times a day, hundreds of bags a year, many thousands in a lifetime. Even when, as their makers argue, disposable bags serve a second purpose at home—as a trash bag or a pooper-scooper or to wrap a school project in on a wet day—most still end up in a landfill soon after they enter the home. Others find their way into storm drains, rivers, oceans. They are mostly not recycled despite decades of efforts. Even their biodegradable counterparts rarely make it to a facility that can actually recycle them.¹⁶ Their environmental footprint and cost are greater than the simple expedient of a reusable bag. They are, as Andy Keller is quick to point out, a product with a useful life measured in hours and a waste life measured in centuries.

That said, plastic bags are a comparatively modest part of the waste stream. They are part of the marine pollution problem, but how much remains unclear. They take up room at landfills, but other packaging forms a bigger part of the 102-ton legacy. Why, then, are so many cities making bags a priority? Why is Andy Keller so passionate about it that he would put his company and livelihood at risk rather than abandon his efforts to undermine single-use plastic bags and persuade others to give them up for good?

Because, Keller says, as a symbol, few parts of our waste stream and our disposable plastic economy are more potent and visible in

our daily lives. And few parts of the 102-ton legacy are easier for an ordinary person to change.

Keller believes that the single-use plastic bag habit—his bag monster—“is the poster child for unnecessary waste.” Breaking the habit of being a bag monster, he says, is the first step in moving our homes, our families and our communities into less wasteful, more reusable habits and consumer behavior. First get rid of the bags, then move on to other disposables that we don't really need, says Keller. At ChicoBag, he ditched paper towels for a next step. Each employee was given a cloth towel with a hook to hang it on. It gets washed as often as necessary.

Keller next bought each employee a thermal container for drinks and a reusable clamshell for salads and sandwiches for casual meals and takeout at restaurants that usually serve on plastic, paper, foam or other single-use diningware. Restaurants that were willing to serve the zero-waste way got ChicoBag employees' business. Others that refused lost those customers, though the ChicoBag workers made it clear they'd happily return if the management reconsidered its position. When it dawned on restaurant owners that they were losing paying customers for no better reason than habit and old thinking, that it was no harder to serve food without wasting paper and plastic—and, in fact, it saved packaging costs—several changed their minds.

These kinds of incremental changes add up, Keller says, altering the dynamic of the consumer culture, because each one gets easier than the last. According to the ChicoBag founder, the way to start that particular snowball rolling is with the plastic bag. It's harder to accomplish without the obvious, clear benefit of the Irish-style bag tax—the plastic industry has for the most part fought off that sort of clear-cut incentive in America, dulling the message that

consumers can simply skip the bag and save money. The industry also has a strong counter-message: Banning bags will cost jobs, fees will hurt the economy and consumer spending, and they'll spawn a new government bureaucracy. Just using the word "tax" is a potent weapon. Never mind that we're already paying an invisible bag tax, Keller says, because they're not really free—consumers pay for them in the form of higher food prices at the market, about \$30 a year per person. It's not as if retailers are going to pay \$4 billion a year for bags and not pass on the cost to customers. The lost jobs and economic harm arguments were raised decades ago by the paper industry in hopes of staving off competition from plastic. Then, as now, it was an instance of an entrenched but aging business model—paper—losing its revenues to the upstart—plastic. The paper bag companies complained of lost jobs, but what they were really fighting was the *shift* of jobs (and profits) to the plastic newcomers. One person's job killer is another's progress. Now plastic bag makers are marshaling the same old arguments, this time fighting a shift from the disposable economy to a reusable one. They have even become champions of recycling, which they initially resisted, because it's a way to keep consumption rates high for disposable things. "The myth of recycling," says Keller, "is that it's okay to consume all we want as long as it has that little recycling symbol on it. But that's completely false, and just perpetuates our wasteful, disposable ways."

Keller talks about plastic bags and the disposable economy in terms of addiction. For him, the cure starts with the bag, because it has to start somewhere.

"Bags are kind of like the gateway drug to all the plastics," Keller says, "and if we can kick that habit, all the rest of our single-use habits will start to fall like dominoes."

PLASTIC BAG RESTRICTIONS, U.S. JURISDICTIONS, BY YEAR OF ADOPTION

All entries are plastic bag bans unless bag fee is noted.

* indicates bag ban approved but not yet effective or enjoined by lawsuit

- 2007** San Francisco, CA
- 2008** Malibu, CA
Fairfax, CA
Manhattan Beach, CA
Westport, CT
Maui County, HI
Seattle, WA (overturned by lawsuit)
- 2009** Fairbanks, AK (5-cent bag fee rescinded by town council after one month)
Palo Alto, CA
Kaua'i, HI
Edmonds, WA
Westport, CT
- 2010** Los Angeles County, CA
San Jose, CA
Telluride, CO
Maui, HI
Brownsville, TX
Washington, DC (5-cent bag fee)
- 2011** Santa Monica, CA
Calabasas, CA
Long Beach, CA

Marin County, CA*
Monterey, CA
Pasadena, CA
Santa Cruz County, CA
Santa Clara County, CA
Sunnyvale, CA
Aspen, CO
Portland, OR
Bellingham, WA
Seattle, WA

2012

State of Hawaii (first statewide ban)
Alameda County, CA*
Carmel-by-the-Sea, CA*
Carpenteria, CA
Dana Point, CA*
Fort Bragg, CA
Laguna Beach, CA*
Los Angeles (city)*
Mendocino County, CA
Millbrae, CA
Ojai, CA*
San Luis Obispo, CA*
San Francisco Part II—extended to include all restaurants and takeout food
Santa Cruz (city), CA*
Solana Beach, CA*
Ukiah, CA
Watsonville, CA*
West Hollywood, CA
Corvallis, OR

HISTORY OF THE PLASTIC BAG

- 1957:** Plastic sandwich bags are introduced to replace wax paper.
- 1958:** Plastic dry-cleaning bags replace brown paper.
- 1959:** After eighty children suffocate by plastic dry-cleaning bags, California tries to ban them. Industry lobbyists succeed in killing the ban in favor of a product warning label.
- 1961:** The Keep America Beautiful antilittering campaign is launched with disposable-product industry funding, placing the blame for trash and pollution on consumer litterbugs rather than on manufacturers.
- 1966:** Plastic produce bags on a roll replace brown paper sacks in grocery stores.
- 1974–75:** Sears, JCPenney, Montgomery Ward and other big retailers replace paper with plastic bags.
- 1977:** Paper or plastic? The plastic grocery bag is introduced to the supermarket industry.
- 1988:** Suffolk County, New York, passes the first ban of plastic grocery bags. A suit by plastic bag industry trade groups overturns the ban.
- 1990:** Maine bans single-use plastic bags in retail stores, but the law is overturned.
- 1996:** Four of five grocery bags are plastic.
- 1997:** The name "Great Pacific Garbage Patch" is coined and brought to the world's attention by Charles Moore and his Algalita Marine Research Foundation. They report that the plastic used in grocery bags is one of the most common found at sea.

- 2005:** San Francisco proposes the nation's first tax on single-use plastic bags—17 cents, the estimated cost to society and taxpayers of dealing with plastic bag waste.
- 2006:** An industry-backed provision of the California Plastic Bag and Litter Reduction Act outlaws the sort of fees proposed in San Francisco.
- 2007:** San Francisco bans single-use plastic bags.
- 2010:** At least twenty communities nationwide follow San Francisco's lead, either banning plastic grocery bags or imposing a fee on their use.

Sources: ChicoBag and the Packaging Institute

THE FAMILIAR plastic grocery sack with the two loops for handles began its conquest of the carry-home, take-out world in the U.S. in the early 1980s, after Mobil Chemical (now ExxonMobil Chemical) sued to overturn a Swiss company's patent on the bag's design. Mobil won the case and the right to make the bag (as did anyone else who cared to do so) and the plasticity floodgates opened, helped by the well-timed invention of a machine that could churn out those same thin, white bags at the startling rate of five hundred a minute. The demise of the patent and the near-simultaneous advent of such speedy mass manufacture ended what had been the venerable paper grocery bag's cost advantage and, therefore, its industry dominance. Weight, price point and ease of shipping (one truckload of plastic bags had the grocery-carrying power of four trucks of paper bags) all were suddenly in plastic's favor. And if plastic needed