

Terrell County Memorial

March, 2013
Sanderson, Texas

Museum News

Burnin' pear

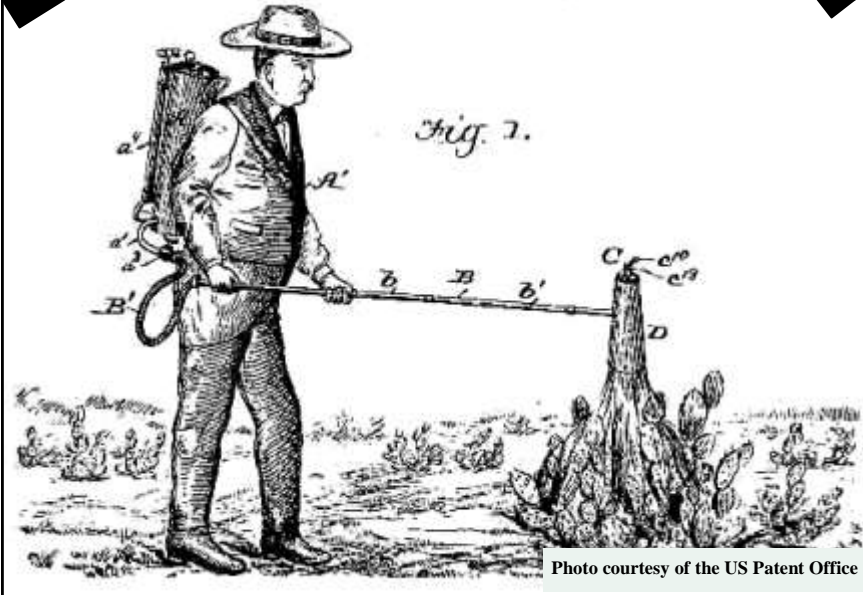


Photo courtesy of the US Patent Office

L. W. Snowden Cactus Burner, US Patent #657,036, patented Aug. 28, 1900 - Differing only in its special, down-flowing nozzle, the Snowden prickly pear burner is very similar to other burners in production, even to the present day.

Drought is a way of life in West Texas. Throughout its history, Terrell County has known times of plenteous rains when the desert and the canyons burst forth in the best olive green they could muster, not the verdant green of the corn fields and maple forests of the east, but a flat, military camouflage green, which is still better than the sun-blasted, withered brown of dried up vegetation.

Green is green, however, and it all serves as a backdrop for the beautiful

wildflowers, cactus and sage blossoms that quickly spring up and rush to do their business before the land dries up and goes back into hibernation once again.

Rain and drought are a yearly cycle in the Chihuahuan Desert and the Edwards Plateau where Terrell County lives. But sometimes, Mother Nature withholds her blessings for several years at a time and the country goes into the shock of prolonged drought.

A drought of historic proportions in Terrell County and West Texas



Photo courtesy of Bill Smith

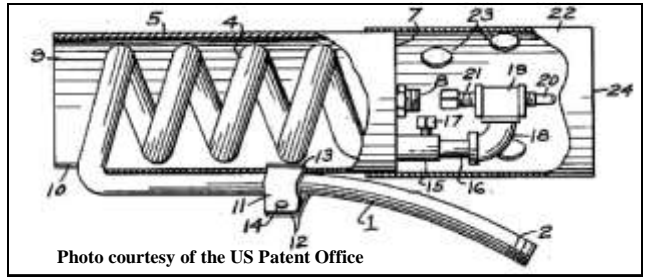


Photo courtesy of the US Patent Office

1949 Blackwell burner nozzle innovation

occurred in the 1950s, lasting in some areas for seven years.

In the first year the cattle and livestock ate what grass there was and soon, the ranchers had to haul in feed to keep them alive.

One option was to sell off the stock and wait for better times, but if the drought lasted too long a family could lose everything they had. The Dust Bowl days of the 1930s saw hundreds of thousands forced to move away from their family homes in the face of starvation and economic destruction.

But the “ace up their sleeve” that Southwestern ranchers had, that the Midwesterners didn't have, was prickly pear, the lowly and ubiquitous cactus that was considered a nuisance in good times, but a God-send in bad.

Almost two centuries ago, the ranchers and stockowners of Mexico saw that their cattle were drawn to eat prickly pear, especially in "drouthy" times. The cactus pads, which are modified stems, are fleshy and filled with water and a good source of moisture, potassium and vitamin A. However, when the cattle ate the sharp spines, which are modified leaves, the tongue and gums soon became infected with “pear mouth,” a debilitating condition. There was also the problem with indigestible fibrous “pear balls” in the stomach, much like hair balls in cats.

Being of *mestizo* (Indian/Spanish) stock, however, the ranchers remembered that when their wives prepared the fruit of the prickly pear, the "tuna," they followed the old Aztec way and roasted the fruit in fire to burn off the spines and "glochids" (tiny, almost invisible spines that come loose easily and cause pain and infection when lodged in the flesh.)

Simply burning the cactus, however, was a problem...uncontrolled burning could destroy the pads and kill the plant. It was much better to hack off the pads and burn them carefully in a fire, turning them often to preserve the pad and remove the spines.

An even simpler method was devised by making a torch and burning the spines on the pads, while still attached to the plant. The less handling, the better, and the cattle would rush in to eat the pads, which in many cases were still hot and smoking.

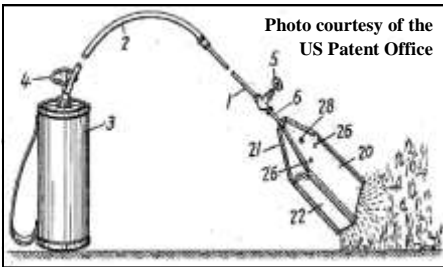
As Europeans moved into Texas they learned this method for feeding cattle in times of drought and it was a lifesaver.

Blackwell cactus burner in the Museum collection, donated by Glen Bob Hinkle and bought from J. Garner when he left Brewster County in the late 1960s.

Soon, they began to invent different ways to do the chore.

East Texans would simply jam a pitchfork into a wood rat's nest (basically a jumble of sticks and grass,) ignite it and use it as a torch. Others cut long green poles, tied rags to the end with bailing wire and doused it with "coal oil" (kerosene.) The burning torch was rubbed over the surface of the pads, burning away the spines.

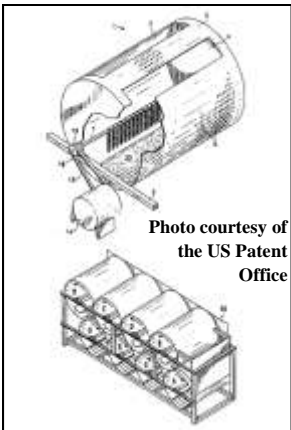
But, all of this was too labor-intensive. A man could burn an acre of cactus in a day, but the cattle would have it eaten in just a few hours. In a bad drought, the rancher or farmer could hardly stay ahead of the ravenous cattle.



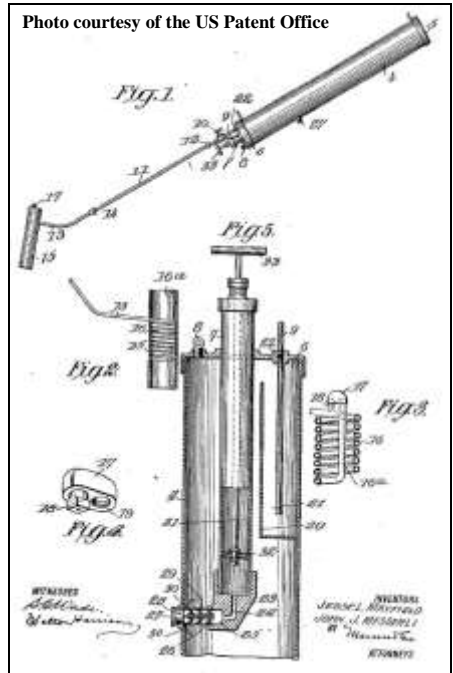
1937 Heberlin Weed Burner

So, as always, Texas ingenuity began to run amuck. Dozens of new devices were invented to solve the cactus spine problem.

One gentleman devised a set of eight barrels that were laid on top of each other in two rows, and made to rotate. Each barrel contained wire brush "scrubbers" that rolled the freshly cut cactus pads a r o u n d , knocking off the spines. Each barrel had a slot that corresponded to the next barrel in line, and the pads would spill over into the next barrel, m o v i n g through the apparatus. When the pads reached



1996 Mueller Apparatus for De-spining Cactus



1913 Messerli and Mayfield

the end of the line, they were virtually spine-free. But, the "machine" was large and prone to mishap, and you still had to cut the pads from the plants and load them into the device. It was not a financial success.

The most efficient way was to burn the pads in place, and dozens of patents were received at the Patent Office in Washington, DC, all a variation on the burning theme.

Although cactus and the lowly prickly pear are found from coast to coast in the US, across Central and South America and even up into Canada, Texas still has more cactus than any other state or country in the world, except Mexico. So, most of the cactus burners were invented in Texas.

The most successful devices were much akin to modern flamethrowers, sending a tongue of flame into the cactus patch to do its work while the operator remained at a safe distance. The inventors devised tanks to hold the flammable liquid (usually kerosene or white gas) that could be pressurized with small, built-in hand pumps. This caused the liquid to be forced out of a cleverly devised nozzle and the flame could be regulated with valves. Later models in-



Photo courtesy of Sears

**Sears Cross Country All-Season Burner™
(kerosene and white gas)**

cluded pressure gauges to warn when pressure was dropping too low.

The most innovations occurred in the design of the nozzle, with late models becoming so powerful that they looked and sounded like jet engines when in operation. The cattle came to associate the roar of the pear burner with feeding time, and when an apparatus was fired up, the cattle rushed toward the sound.

Reminiscing about that very thing, Art Eatman of Terlingua remembered, “My grandfather used to tell me stories about burning prickly pear in the '20s. Evidently when the cattle heard the roar of the pear burner, they'd come running. Somewhere or other I have a picture of one of the ranch hands carrying the rig around with all the cattle standing nearby. Those were harder people and harder times. I wouldn't want to carry five gallons of kerosene on my back with a huge open flame out in front of me.”

Eventually, devices made of aluminum and the use of propane fuel lightened the

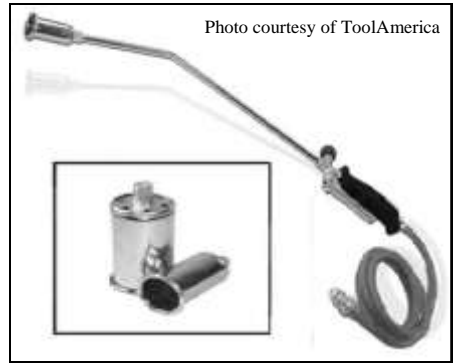


Photo courtesy of ToolAmerica

ToolAmerica™ Propane LP Torch Roofing Weed Pear Burner Ice Melter for 20 lb propane tank

load.

Now, in the 21st Century, very neat, compact multi-use torches are available, adaptable for prickly pear burning. We've come a long way from sticking a pitchfork into a wood rat nest!

Prickly pear burners were widely used in Terrell County in drought days. Although we haven't had to resort to them in the recent drought, you can bet local ranchers have them stowed away, ready to use.

Terrell County rancher Pinky Carruthers remembered well having to fire up the old burner to keep his stock alive in the 1950s. He said it was hot, grueling work, but it was necessary to keep what they had.

But, should we be burning our prickly pear? Medical studies in the '80s, through '00s showed that eating 100 to 500 grams of cooked prickly pear pads lowered diabetic blood glucose levels by 8 to 31%.

That's great news, but diabetics hardly will have an impact on world-wide prickly pear populations. Considering how much prickly pear resides around Sanderson and Terrell County, we could supply pharmaceutical companies until the cows come home (if you can get the cows away from the pear!)



References

- Art Eatman quote, retrieved from <http://www.armedpolitesociety.com/index.php?topic=1219.30;wap2, 9-25-12> Conversation with Pinky Carruthers, September 15, 2012
- “Medicinal uses of prickly pear,” retrieved from <http://www.homebizblogs.com/2012/04/history-of-the-prickly-pear-cactus/, 9-25-12>
- Google Patent Search, <http://www.google.com/?tbnm=pts>

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