

# Snuffing a public hazard: His know-how is spurned

By Frank Rowland  
Atlantic City

ATLANTIC CITY — As many as 3,000 persons burn themselves to a crisp or suffocate from smoke inhalation in the United States every year in fires started by cigarettes.

That figure has been well documented by the National Fire Protection Association. It does not include property damage caused by cigarette fires. It does not include the cigarette fires listed as undetermined in origin.

Enter Charles Cohn, a slight, 76-year-old man with the voice of a teenager on the verge of puberty. Cohn may be the last of the Edisons — a self-made scientist.

According to him, those 3,000 persons do not have to die. Not one bit of that property has to be lost. Cohn has the answer — a self-extinguishing cigarette, a butt that literally chokes itself to death. Charles Cohn's invention is dirt cheap, works 100 percent of the time, and requires hardly any smooching on the production line.

What's more, it actually cuts down on the poisons — tar and nicotine

that smokers love to suck into their lungs.

Now for the bad news. Nobody wants it.

Cohn wrote to all six major cigarette producers. One of the rejections went like this, he says: "Well, we have our own development laboratories and we're not interested in outside patents." Now that's a silly answer, but that's the answer.

That Cohn's invention works is without question.

He sits at his dining-room table and pokes through 30 or 40 opened packs of cigarettes, all different brands, and pulls out two Marlboro Lights. He smokes one with his magic substance and doesn't do a thing to the other. He sticks the first one and then the other in his mouth, lighting up with the awkwardness of a 9-year-old experiencing his first corn silk behind the ears.

He chokes. Obviously Cohn's smoking habit is a matter of scientific dedication. Even it is apparent that the coated cigarette is not distributing as quickly as the patented one.

Cohn sits both burning betas on a fine CIGARETTES on 1-8.



In Cohn's hand, one cigarette burns on after treated one has died

CIGARETTES from 1-8 small pillow made of the kind of material used and beds are made of the kind of stuff hardcore puffery fry themselves on at a rate of nine per day in the United States.

In two minutes, the coated cigarette goes out without making a mark. The choked one leaves a big smoldering hole. Cohn picks his thumb in the hole to extinguish the wick-like blaze.

"Wow! Not snuff. He pulls away, tries it again, finally after his wife, Rose, suggests it for the third time, he douses the smoldering crater with water.

By contrast, the spot where the coated cigarette rested is as cool as an Eskimo's nose. "See," he says, looking up Mrs. Cohn, who has been making a running commentary on her husband's genius, catches her breath and just stands behind his chair, beaming.

There's nothing hush-hush about Cohn's process. He has patented it, but he is not exactly the inventor. The substance is sodium silicate. He says it is well documented, non-toxic and non-carcinogenic. The only thing that the film gives off when the cigarette burns is water vapor. That's all," Cohn says.

Sodium silicate costs 3 or 4 cents per pound, which means it will cost cigarette manufacturers three hundredths of a cent to coat a pack of 20 smokes, Cohn's research says.

Cohn has what is called a user patent on it. "A user patent says that you can take a material that's already well known but apply it to something new, like a cigarette," Cohn explains. Why hasn't anyone tried it before?

Obvious. "A lot of inventions that seem very obvious people haven't come up with," Cohn suggests, shifting quietly up the gold velvet sofa in his pristine but simple home.

The home is in a crumbling neighborhood, a part of town where regular replacement of houses is a far gone conclusion. Last month, for the first time, the Cohns' house was robbed. But they have lived here since 1932. It is their home and they have no desire to leave. "I want to stay near the boardwalk. We walk a lot," Cohn says.

Cohn has 34 patents and nine original inventions to his credit. He has made some money, but not nearly what he could have made.

The fact is Cohn has been done out of more royalties than most people earn in a lifetime.

Charles Cohn was born in Philadelphia, son of a man who sold stores. After he graduated from high school he entered the family business. But his interest extended beyond profit and loss ledgers. He was always dreaming up ways to improve the product.

His first invention was a flexible pipe for gas stoves. It eliminated the need for stiff cast-iron pipes and enabled homeowners to move the stove without it springing a leak. The flex pipe made a lot of money, but Cohn never patented it.

On his next big invention, he got a bit more shrewd, but not shrewd enough to save him from a 10-year court tangle.

"When I was young my father used to take me to the stove foundry where they did nickel plating on the trimmings of stoves. The stuff would be set in the field a couple of days and it would rust," he says.

"And I always used to hear them talk about that. One of the first things I tried to do, but never succeeded, was to lick that problem. I never could."

Showered everybody. Eventually his dabbling led to greater things.

In 1946 he devised a process that made normally dull aluminum shine like chrome. He applied for a patent, then started showing everybody and his brother the new process. He figured it would bring him business.

It brought him grief.

The Aluminum Company of America (Alcoa) filed for an identical patent shortly after Cohn took his process to the road. Alcoa said it had filed first. The little man and the industrial giant locked horns in a 10-year court battle.

Cohn won. Alcoa had to pay him for the use of his process.

Today the product is used chiefly by auto manufacturers. The shiny aluminum is substituted for chrome. The process set Cohn, a man with 34

patents, more than a high school education, on a permanent course. He became one of those cherished heroes, the self-taught inventor.

In rapid succession, Cohn patented processes related to his original discovery, processes which enabled manufacturers to give the aluminum used to keep it dyed permanently. He

did very well, and had a team of college-trained chemists working for him before he shut down his Philadelphia laboratory.

There were disappointments, too. Cohn tried to collect royalties from big companies, represented that after left Cohn with the short end of the financial stick.

"We should be multimillionaires," says Rose Cohn, "but we're nowhere near there, and the reason is that we were given a hard time." She declines to say any more for publication, noting, "They can still hurt me."

Charles Cohn would rather forget the past and concentrate on his work. His secret is simple.

Stubborn persistence and curiosity are the story of his self-extinguishing cigarette. He started the project 20 years ago as a lark. He and his wife began smoking and he wanted to do something to help him.

"I said to myself, 'My goodness, here's a boy who might be doing himself harm.' The first approach I took was the filter. He has a patent on a cigarette filter. After a while I decided that was not the area I should be working in."

He started working on his self-extinguishing cigarette in 1974, the project started falling together. Cohn obtained a patent on his sodium silicate process. But there were problems. The substance was gooey. It jammed up the cigarette-making

machines. Back to the drawing board.

Two months ago Cohn was awarded a patent on what he says is a perfected process.

"We've tested by the National Bureau of Standards. They say it works. The U.S. Department of Health, Education and Welfare (HEW), too, says it works. Indeed, HEW tested Cohn's silicate-coated cigarettes and found that because of the process, the cigarettes give off 25 percent less tar, nicotine and carbon monoxide per puff to the smoker. They're even good for the nonsmoker. According to the report, when Cohn's coated wand is lying in an ashtray it gives off 60 percent less tar, nicotine and other gases. It is virtually smokeless.

All of which should endear Charles Cohn to the tobacco companies. But it hasn't.

Paul Sewin, a spokesman for the

National Fire Protection Association (NFPA), is aware of Cohn's invention. He says the NFPA would love to see the tobacco companies adopt the self-extinguishing cigarette. He doesn't know why they won't, and neither does Cohn.

Perhaps, they reason, a law might be the only thing to persuade the companies to get off their butts.

One federal bill and three state bills have been proposed to force the tobacco companies to make self-extinguishing cigarettes.

At the moment, to Cohn's view, cigarette manufacturers are playing dumb about the state of the art — even though Cohn says he has approached them several times with his process.

Ann Browder, a Tobacco Institute spokeswoman, was recently quoted as saying that the federal proposal "based on untested and highly ques-

tionable assumptions that such a cigarette can even be produced."

He added that "there is no research to determine if a self-extinguishing cigarette can be made."

At such statements, Charles Cohn chuckles. He is not angry. At 76, he has learned not to be impatient — there is no room in an inventor's life for impatience. In fact, now that he has a patent on what he considers a perfect process, he wants to move on to other things.

Rose Cohn sits across from her husband, smiling and prompting him. He doesn't have to know his own horn. She takes care of that. She is his secretary, publications person and partner. He is her hero.

Cohn talks about the list of new inventions he wants to work on. He has them in a little black book. "Ah," he says to his younger son's voice, "if I only had 20 more years."

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