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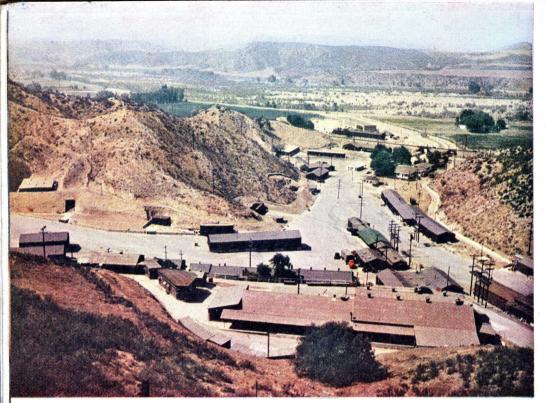
John clymer

No More Football For Us!

By Father Guthrie, PRESIDENT, GEORGETOWN UNIVERSITY

THEY'RE RULING CHINA BY MASS MURDER By Peggy Durdin

Vinter



Pat Lizza's closely guarded Bermite Powder Co., near Saugus, Cal., turns out fireworks for the public, military flares, fuses and detonators for the Army.



Thousands of slow-burning fuses on a wood scaffold were used for this fiery George Washington at a show in the Los Angeles Coliseum.



Lizza shows his son, Tiverio, the proper way to tie fuses to a frame that is rigged for a fireworks American flag.

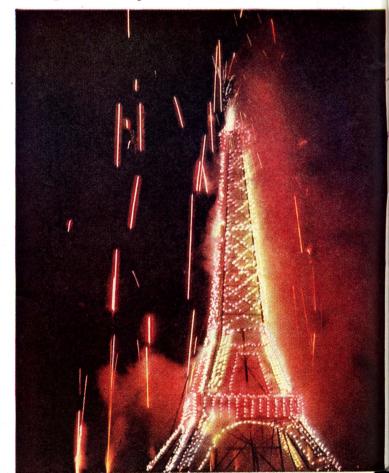


Pyrotechnics expert Lizza braves intense heat to ignite a fuse that misfired in a burning pit at the Bermite plant. He learned the fireworks business in Italy from his father and grandfather.

Frank Cuneo, who designs the wooden frameworks for the fireworks novelties dreamed up by Lizza, works over a motorcycle-rider form he has pulled out of the Saugus storage dump.

A hundred-foot Eiffel Tower. Roman candles set off during this time exposure caused the vertical streaks.







Intricate timing and exact combinations of powders, fuses, boosters and paper parachutes are needed to achieve fireworks like these.

He Sets the Sky on Fire!

By FRANK J. TAYLOR

Here's how an expert pyrotechnician-master of fireworks-creates that extravaganza in the heavens at your state fair. He's one of the last of the hereditary experts who set off bombs to amuse the crowd.

N Sacramento the directors of the California State Fair were deep in parley over how to stay within the budget, when a chunky little human bombshell in baggy clothes pushed his beaming face into the room and loosed a burst of verbal pyrotechnics. He could, he said, produce a more magnificent fireworks display than anyone had ever seen this side of Mount Vesuvius, near whose slope our hero, Mr. Patrick Lizza, was born.

"I got a great idea, gentlemen, the greatest idea that ever comes to me before. All we need is a little more money, just a few thousand dollars more, and we put on the greatest fireworks show in any state fair. You gentlemen go along with me for a little more money and we really light up the sky." As usual, after half an hour of Mr. Lizza's salesmanship and kidding, the directors were in great good humor and ready to go along—skyrockets, bomb bursts and flares—and the budget be damned. The directors, it should be said, have been pushovers for Lizza for three decades.

Which is as it should be, for effervescent Patrick Lizza, of Redondo Beach and Saugus, California, is one of the world's outstanding artists in fireworks. Lizza loves to light the sky with his fiery waterfalls and forests, his gerondoles and sparkling portraits of notables, his animated Mother Goose and Walt Disney characters done in fleeting bursts of flame.

PHOTOGRAPHY BY GENE LESTER

A short, stout man who manages to waddle energetically, Lizza perspires great beads of inspiration when he thinks in terms of fireworks pageantry. He nervously brushes back an unruly cowlick of hair, then mops his brow and explains, "Me, I don't do these shows for the Fair Board; I play to the crowds in the grandstand."

Lizza is far too great an artist to fool with home fireworks, such as firecrackers, Roman candles, and pin wheels. Let the ninety other fireworks manufacturers in the country have that business. Lizza maestros only magnificent extravaganzas that call for the starry heaven for a backdrop. In good years, he and his crews have staged up to 200 shows at state fairs, coliseums, (Continued on Page 172) THE SATURDAY EVENING POST

HE SETS THE **SKY ON FIRE!**

(Continued from Page 43)

festivals and patriotic gatherings all over the country. This year he will put on relatively few.

When we have good times, we shoot fireworks; when we have war, we make war stuff," explains Lizza. This year, flares for Korea is big business. Fuses for rockets is big business. Fireworks is just a side line." During World War II, Lizza's two

powder plants at Saugus and Redondo Beach turned out 103,000,000 illuminating shells and flares so fast that he and his workers won five Army-Navy E awards and two Naval Ordnance Development awards. They did it without a single accident, handling tons upon tons of high explosives. On one big order, on which the Army allowed him thirty-six months to reach peak production, Lizza hit the peak in ten months. At present he has a \$6,-000,000 backlog of war orders-flares, fuses, train shells, rocket motors and detonators.

That's our secret-how to do it," explains Lizza, wiping his wet brow. "We've been making fireworks thirty years. I tell them, 'Listen, in the fireworks business, I got to be ready to shoot the fireworks at nine o'clock on the evening they say.' You can't shoot fireworks tomorrow, if the crowd is waiting tonight. You're in the grandstand when the lights go out at nine o'clock. Okay, we start shooting fireworks at nine o'clock.'

Which is one reason for Mr. Patrick Lizza's popularity with the directors of state fairs and pageants. The other rea-son is his resourceful ingenuity in telling stories in fire, know-how inherited from two generations of pyrotechnics impresarios, beginning with Grand-father Antonio Lizza, of San Giovanni, Italy, where Pat Lizza's father, Justin Lizza, and Pat, too, were born.

Pat Lizza remembers that Grandfather Lizza had trouble getting his fireworks to shoot, and that he sometimes had to build bonfires to make his Roman candles and skyrockets hiss into the sky.

"He didn't have the powder to work with," apologizes Pat. "Now we have good powder, good chemicals, good ideas. Modern fireworks display is built around the bombshell, which has to have split-second timing. Grandfather didn't know about bombshells. My father learned how to make them and how to discharge them from a pipe, so they go where he wants them and not crazy, every which way, like a skyrocket. My father has lots of noise and spread to his bombshells, but they are too big and dangerous. I like better to send up a dozen in a flight. It makes the same display and is safer."

It was Justin Lizza who moved the clan from Italy to the United States, when Pat and his brother, Beby, were youngsters. The Lizzas settled in Dun-bar, Pennsylvania, not far from Pittsburgh, where they established the Key-stone Fireworks Company. Beby Lizza and his sons still run Keystone. There was a lot of artistic temperament in the family, so in 1926 Pat Lizza decided to take Horace Greeley's advice. He packed his part of the family and moved across the continent to Redondo Beach, California.

"After that, we don't get fireworks in each other's hair," he explained appreciatively.

Out West, Pat Lizza did even better than all right. At fifty-four he owns most of two profitable explosives companies, Bermite Powder Company, of Saugus, and Golden State Fireworks, of Redondo, properties valued at \$2,-000,000. His oldest son, Hugo, now thirty, is general manager of Bermite, which concentrates largely on war orders, on railroad and highway flares and on explosive pellets for perforating oil-well casings. Golden State will be something for fourteen-year-old Tiverio.

Though the fireworks end of the business is now "just a pleasure affair," as Lizza puts it, it satisfies the artist in him. It is poetry and music in the starlit sky. There is also a challenge in the mass production of parachute flares that turn no man's land into an eerie pale daylight. Lizza takes great pride in the flares he manufactures for Union Pacific, which insists on jumbos that are visible three miles to the engineer of a high-speed streamliner, whereas standard railroad flares are seen only a mile.

But when he sits down with a pad of paper to sketch out big fireworks ideas for shows like the state fair or the Fourth of July celebration at the Coliseum, in Los Angeles, and sometimes as many as sixty other Fourth of July shows simultaneously, that is when the beads of sheer inspiration ooze out of Patrick Lizza's forehead. Lizza starts his creating about three months ahead of a show, because there are numerous intricate staging and timing problems to be solved, once he has given birth to a fireworks brain child and figured out the right combinations of powders, fuses, boosters, lances and paper parachutes to do the job. The packaged product isn't much to look at—just a round, paper-bound cylinder, weighing as much as twentyfive pounds, jam-packed with an assortment of explosives synchronized to go off at split-second intervals.

"In this business, everything de-pends upon timing," explained Lizza.

One difficulty is that there is no way to be up there, to check, when the stuff goes off, so Lizza has to depend on three generations of experience to get his effects right. He also fires trials on a ranch he owns nearby with a small stadium on it, or on the proving ground he maintains in the hills back of his plant for testing war explosives.

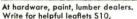
Lizza's breath-taking displays are built around fast and slow bursts, fired from pipes which give the projectile a twist, like that of a rifle shot. This makes them go straight, and burst at the spot in the sky where he wants fire when he wants it. In some of his larger salutes, packaged in a single two-foot bomb, Lizza achieves sixty small 'breaks" in half a dozen colors following the main burst.

You've got to have a lot of things to make fireworks like that-colors, powders, papers, twine, pin wheels, charges," says Lizza. "If you don't know your noodles, you are in trouble, and fast.'

One of Lizza's prides is his fireworks waterfall, which he has named "Niagara Falls." He achieved the effects with slow-burning aluminum powder, which as he says, "doesn't burn 'boom," but slowly, like water falls." The wa-terfall runs into money, but it is worth it when he can fill an area like the Los Angeles Coliseum with slowly falling fire that burns for three and a half minutes. To achieve the illusion, Lizza suspends the slowly burning flares from paper parachutes, some the size of an umbrella, some as large as a room. Lizza has a way with parachutes,



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which he uses by the hundred thousand for the flares he mass-produces for the armed forces.

In one big victory celebration at the Los Angeles Coliseum in 1945 at the war's end, Lizza shot \$5000 worth of fireworks in five minutes. He likes to talk about that show. Also about his 100-foot Eiffel Tower done in fire, and his Statue of Liberty. Another of his prides is a seventy-foot Fountain of Fire. Still another is the Golden Forest, which looks like a forest of trees painted in fire. One of Lizza's creations an enormous snake of fire that slithers across the sky.

Lizza has spent a small fortune developing sharp and distinct colors in his bursts. The color effects are achieved by adding secret chemicals to his explosives, which he manufactures in his own plant. "We specialize on American colors," says Lizza, a patriot who likes any combination as long as it is red, white and blue.

Lizza gets his inspirations for new fireworks displays largely out of cur-rent news events or shows that are the talk of the town. He did Snow White and the Seven Dwarfs when the Disney picture was the rage, and followed up with Mickey Mouse and his pals and with Popeye the Sailor eating spinach. He has some old stand-bys, of course, such as the cop chasing the speeder, Casey Jones in his locomotive and

* * * * * * * * * * Some people can always use new friends-and will. -W. HOWE MOODY.

jockeys on their race horses, done on the ground with the aid of frames such as those set up for fiery portraits of General MacArthur, Governor Warren and other notables.

"When we do a picture in fireworks, we make it look like the man, not just anybody," says Lizza, who works the outline of the portrait on a wire-andwood framework into which his men stick thousands of lances, which are small slow-burning fuses that look like brown cigarettes.

Lizza takes pride in originating his own ideas before sponsors of his shows can beat him to the fuse.

When Lindbergh flies the Atlantic, they don't have to tell me to do Lindbergh and his plane. I just do it," he explained.

For the California Centennial celebration at the state fair, Lizza had miners digging and panning gold, a prospector with his donkey, and an old wood-burner locomotive, all done in fireworks and moving across the stage. The frameworks for shows of this sort on the ground are designed, after Lizza has outlined his big idea, by Frank Cuneo, who has worked with Lizza for many years.

The atomic-bomb test at Bikini had Lizza stumped for a time. He knew he ought to do a Bikini and he had the thing all thought out, but no fairground or athletic coliseum was big enough for the fireworks atomic mushroom he was cooking. A fissionable character himself, Lizza was about to burst, when El Paso, Texas, called on him for a show in celebration of the centennial of Fort Bliss. He was able to get the Bikini off his chest in a super display of colored fireworks over the hills outside the town. Observers who had seen the original Bikini explosion assured Lizza that his fireworks atomic

explosion was even better than the real thing.

173

One of Lizza's more spectacular jobs is his "gerondole," as he calls it, his own creation and one that costs about \$150 for fifteen gorgeous seconds, during which thirty-six spreads shoot off from the main burst, rotated by seventytwo pushers that give the effect of fiery wheels within wheels. This 1,000,000 candlepower spectacle has been called Lizza's flying saucers." A lot of beads of inspiration were squeezed out of the Lizza forehead before he was able to get the complicated gerondole timed just right.

One of Lizza's joys is the number of high-brow scientists from Cal-Tech who have come out to his desert canyon to get his help in solving problems involving boosters, delayed fuses and making explosives behave. When researchers had developed the jell-gas fire bomb, for example, but were having trouble shooting it off, military men told them, "Go see Lizza." He and his men evolved a fuse that ignited the jell-gas at the right split second, so that a single bomb exploding in all directions starts up to thirty fires.

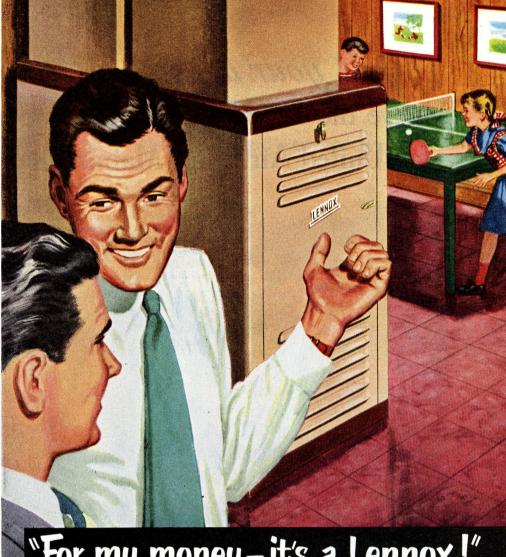
Lizza's floodlighted canyon, which is about forty miles north of Los Angeles and 1400 acres in extent, is something out of Snow White and the Seven Dwarfs, only aboveground. Closely guarded, it can be reached only via a narrow railroad underpass through which one truck can pass at a time. Beyond the shaded headquarters office is a series of eighty small buildings, some behind heavy earthen bulwarks, some half underground, and all so scattered up the winding, barren slopes that an explosion in any one of them will not damage the others. It is hard to believe that Lizza has packed in this isolated canyon up to 2000 workers, most of them people from the surrounding countryside.

Some of the explosive, such as the meal that goes into railroad fuses, is so safe that workers handle it with shovels; some is so dangerous that the automatic machines used to stamp pellets are hidden behind heavy concrete walls and can be watched only by a series of mirrors set at angles. Most of the fireworks powder looks like ground charcoal. Lizza reaches into a bin, grabs a handful and says, "This is for our stars—it sparkles as it burns," or "This we use for our Salutes." Lizza uses powder and chemicals from many sources in this country and abroad. In his Big Burst, he cracks out up to a dozen colors simultaneously.

The average person sees fireworks and thinks this business is easy," says Lizza. "It isn't. It's hard work. I've tried to break young men into it like my father did, but they don't like it. It's too hard work."

For Lizza, a ten-day show like the California State Fair is a postman's holiday. He takes a crew of ten to twelve men to set up the frames during the day and help with the shooting in the evening. Lizza and his family move into a suite at the Senator Hotel, and he has the time of his life until the fireworks are gone. The patriotic bursts in red, white and blue often bring tears to his eyes. Lizza is a sentimental fellow. and when Admiral Blandy came out to Saugus to make a speech and award him the Navy E for loading 10,000,000 shells, the rugged little fireworks magnate broke down and cried.

"You couldn't build up a business like this in any other country," he said, his blue eyes lighting up like stars. This country has been good to me. It has been good to everybody. She is a mighty good country." THE END



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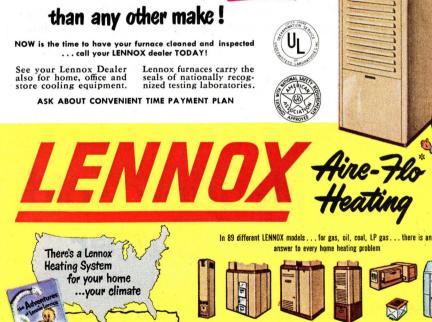
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