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JULY 15, 1982

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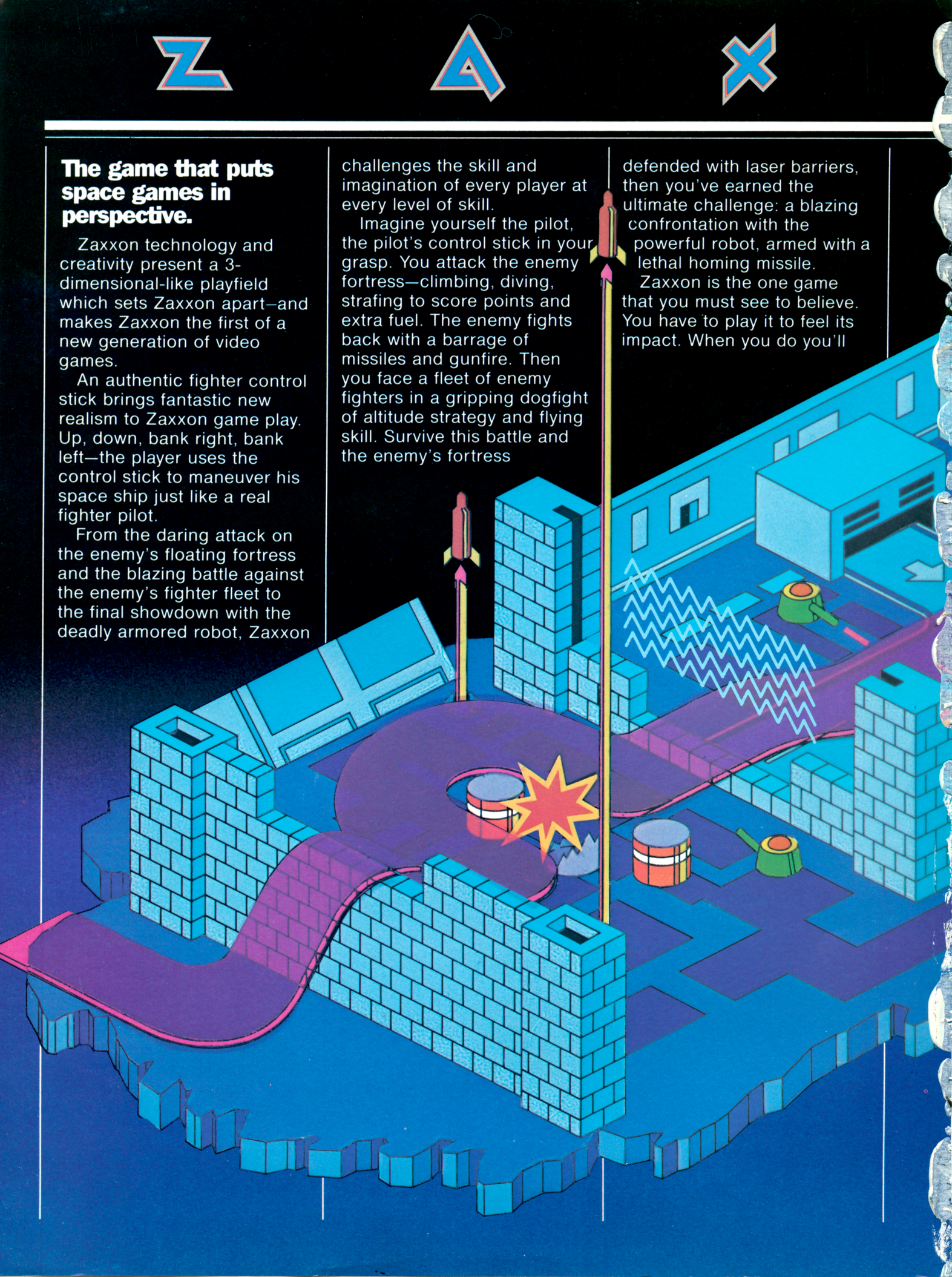

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Volume 8, Number 14/July 15, 1982

PLAY METER

The Twice Monthly Publication for the Coin Operated Entertainment Industry

BPA Circulation Audit applied for

FEATURES

35 **Computer Shortcut**
Two problems face every jukebox operator. Norman Dolph examines the problems and tells how a computer may be the solution.

38 **Video Madness?**
Does Chance and Fate govern a video game's success? Exidy personnel say there are principles governing a successful game.

46 **Quiet Video Games**
Maybe some of your customers say they love to play video games, but the sound effects are just to loud for them. Paul Romer tells Laura Braddock how he solved the problem.

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Cover Credit: Speed-up kit legality, video addiction morality—Exidy's new video, Pepper II, *is themed with this issue's "salt in the wound" cover.*

UP FRONT

Problems, problems, problems! How many times have you heard that little phrase? More times than you would care to count, I'm sure. But the problem (pun intended) is that we've been hearing it a lot lately. I guess it's just a sign of the times. The bigger you get, the bigger your problems become.

And that's just as true with this industry as it is with anything else. The industry has gotten a lot bigger and so has its problems. But I'm tired of talking about problems. I think by now, just about everybody out there knows the problems that we as an industry are faced with. And I also think that, for the most part, all of these problems are being dealt with to one degree or another rather successfully, and, like all problems, will eventually be solved.

As always, *Play Meter* stands ready to do whatever possible to help solve industry problems. But let's put our problems on the back burner for a moment, and ask ourselves the question, "What is it that really makes this industry tick?" One thousand people may give 1000 different answers, but when you get right down to it, it's the games themselves that make this industry tick. Not long ago, it was pinball. Today, it's video. But not your run-of-the-mill pinball or video. What I'm talking about here are *great* pinballs and videos. We all know there's a difference, and we can all rattle off the names of all the past great pinballs and videos. It's truly incredible the tremendous effect a great game can have on this industry.

Just look at the impact *Pac-Man* has made on America. Almost everywhere you look, you see something with *Pac-Man* associated with it — clothes, accessories, toys, etc. The point here is that *Pac-Man* was a truly *great* game. And what this industry thrives on and needs desperately are more *great* games and fewer stiffs.

I think that if I were a manufacturer, I would rather build 100,000 of one particular game than 10,000 of ten *different* games. With all the talent that it takes to develop ten games, that same amount of talent could be used to develop one truly *great* game. And just think of the manufacturing costs that would be saved by not having to gear up for ten different games during the year.

That all sounds good and looks good on paper, but if it's all that simple, why are there so many manufacturers coming out with so many different games? The apparent reason is that nobody knows beforehand whether or not a particular game is going to be a winner or loser.

Too many manufacturers spend too much time, money, and effort trying to develop new games on old ideas. In this sense, all they're doing is legally copying somebody else's idea. And every now and then, they will come up with a winner. But more often than not, all they end up with is another loser.

What manufacturers need to do is seek out new ideas and create innovative games that set the pace, not follow it. It seems like every time somebody comes up with a truly *great* game, everybody else jumps on the bandwagon and comes up with a version of their own. All this leads to is market saturation and boredom at the player level with too many games of the same type everywhere.

I've seen the things that can be done on a video monitor. The technology is there. The visual effects that can now be created on CRT are almost beyond one's imagination. The video games of the future will most certainly be a far cry from the games we have today. The question is, how far off are these games of the future? One thing is for certain. The less time manufacturers spend chasing old ideas, the sooner that day will come. Let's hope we don't have to wait too long. Let's get ticking!

Ralph C. Lally II
Editor and Publisher

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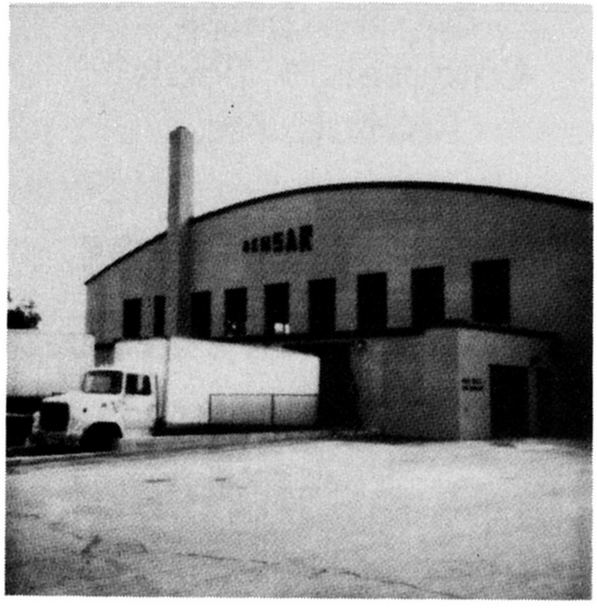

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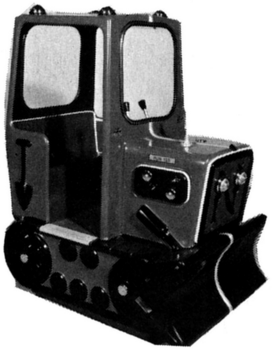

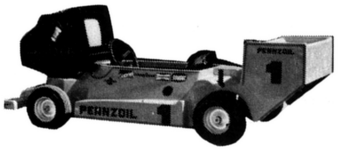

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Letters to the editor . . .

Model ordinances

Being closely attached to the coin machine industry, I have been interested in the question or problem of regulation of game rooms, particularly by local municipalities, through licensing or other means. I have read the articles which appear in *Play Meter* from time to time.

Many people, either as concerned citizens, people involved in local government, or merely for conversation, have asked me what type of regulation would be reasonable and acceptable. Although I have attempted to answer the questions, I have really been somewhat stumped when they have asked for an example of a model ordinance.

Many cities have passed ordinances and people in the industry have been quick to criticize those which are offensive but, to my knowledge, nobody has proposed an alternate acceptable ordinance. To a certain extent, cities which pass ordinances intending to regulate the business have made them offensive or confiscatory inadvertently, not having sufficient input as to what might be accepted. (Obviously, to a certain extent, some of the ordinances have been designed to be sufficiently offensive to make the operation of a game room difficult or impractical, too.)

If you have any examples of ordinances which are reasonable and acceptable for the purpose of regulating the business while not destroying it, I would appreciate it if you might supply copies to me. I think, on a nationwide basis, it would make more sense for people in the industry to scream less after offensive legislation was passed by cooperating with city councils before such ordinances are adopted and providing those legislative bodies with a model ordinance under whose terms the business can survive while all interested parties are reasonably satisfied.

Name withheld upon request

[Ed. Note: A number of groups have been developing model ordinances. Among them are the Amusement Device Manufacturers Association and the Ohio Music and Amusement Association. I'm sure any one of these organizations would be more than willing to share their information with anyone who needs it.

We would also like to encourage any others who have been successful in dealing with local ordinances to share their experiences with our readers. Too many people look on such problems as local problems, but in reality, they are industry problems that we must solve. If operators faced with regulation problems can see how others have successfully dealt with similar problems, the better off they and the industry will be.

Local problems are everywhere. And as such, are not really local problems, but national problems. On this one, we all need to work together.]

Kudos to Welu

He did it again!...and I compliment Dick Welu's unerring accuracy in choosing the real video game "winner" (see *Play Meter*, June 1, 1982 isue).

As always, his article was thoroughly enjoyed.

Fred Skor
World Wide Distributors Inc.
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P.S. I, too, used to think I understood this business.

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NEWS

By Mike Shaw

MUNICIPAL ORDINANCES ILLEGAL • "GOODWILL GESTURES" AT NAMCO • MILLER THRILLER • VIDEOS BY THE BAY • GOVERNOR VS. MAYOR • "PAY IT," AMOA SAYS • VANCOUVER BANS MINORS • A.G.E SUCCUMBS • PIZZA TIME, SHOWBIZ SETTLE DISPUTE • K.C. TO CHASE AGAIN • ENGLAND CONSIDERS COPYRIGHT • VENDING PROFITS REPORTED • CITIES ATTACK TRUANCY • MOT LOOKS TO FUTURE • ATARI REWARDS DEED • GETTING SPECIAL CARE • TORNADO TABLES TWO • 7-ELEVEN CROWNS CHAMPION

MUNICIPAL ORDINANCES ILLEGAL

Millie McCarthy, president of the New York State Coin Machine Association, said that local ordinances throughout New York that impose excessive taxes on video games are illegal.

According to McCarthy, state law prohibits more than a $25 levy per machine. That high-end figure is allowable only to large municipalities, she told *Play Meter*. Smaller towns are restricted to even lower taxation per machine, she said.

"We are seeing some taxes as high as $250 per machine."

McCarthy also said that several ordinances in New York and elsewhere are illegal because they call for licensing fees that would bring in more than their administrative costs.

McCarthy vowed to fight local municipalities after the state legislature finishes deciding on her proposal for licensing operators. She is currently in a battle to get legislation passed that would license operators according to the number of machines they own. No operator would pay more than $1,000 under the McCarthy plan. That assessment would be leveled against operators of 300 and more games.

McCarthy claimed her bill—she has been trying to get a version of this bill passed into state law since 1965—would allow the state to regulate the coin-op industry without strangling it.

"I am totally opposed to licensing per machine," she offered. "It's too much trouble, and it won't solve the problem of illegal operations."

McCarthy believes her concept for licensing will enable the state to keep tabs on the people in the industry, rather than trying to keep track of thousands of pieces of shifting equipment. She also believes that if the state can regulate the coin-op industry in this manner, it will be an answer to local communities who now offer their own brand of ordinances behind the contention that there is no current control over coin-ops.

McCarthy's bill, although it has been ignored for 17 previous sessions, is being given added consideration this year. The massive influx of games and operators has brought a need for the state to regulate, in some fashion, the coin-op crowd; and, there is better organization of those business people affected by the games.

"We're even getting support from the bar owners this time," McCarthy said. "We're all together like a family."

Perhaps some of the interest evolved when the New York Assembly decided to consider a bill that would require operators to pay a 25 percent gross receipts tax on collections. That proposal was whittled down to 7 percent before it passed the Assembly and is reportedly dead on the Senate floor. •

"GOODWILL GESTURES" AT NAMCO

Atari and Bally have made equity investments in Namco Ltd., but officials at Namco-America in Sunnyvale, California, said that doesn't mean either of the video giants will exercise any type of control over Namco.

Namco executives called the investments "goodwill gestures," and said they are intended to bring the companies closer together in their licensing relationships.

Namco has recently taken up production in the United States. (See *Play Meter*, June 15, p. 26). But, according to Joanne Anderson of Namco, the firm is in no position to manufacture on a large scale. Hence, licensing agreements with bigger companies like Atari and Bally will continue.

"Our company is basically divided into two divisions here," Anderson explained. "The legal branch handles licensing while general operations takes care of production and marketing. The two most often stay separate."

Anderson noted that licensing has meant big business. Just the *Pac-Man* character alone, licensed to Midway Mfg., has been sub-licensed to more than 400 retailers. Keeping the dollars spent on various forms of *Pac-Man* in mind, it is easy to understand why companies like Atari and Bally are interested in maintaining a close relationship with the firm that brought the game to the marketplace.

The Atari investment was estimated at $1.2 million. Bally and Namco have declined to release statistical information on the Bally equity purchase.

"It is a very small equity interest in Namco," Anderson said. "It will have no effect on our operations here. They will exercise no control over Namco operations." •

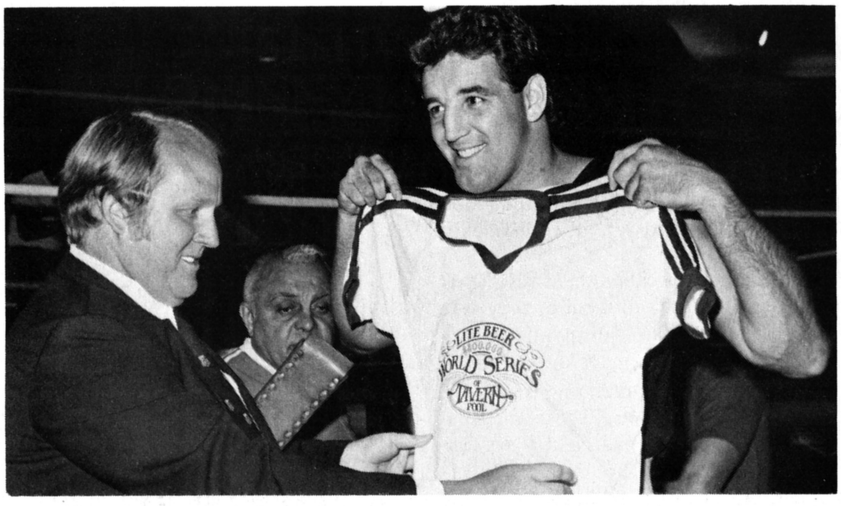
MILLER THRILLER

Thirty-one-year-old John Shuput of Omaha, Nebraska, captured first place and $25,000 in the Lite Beer $200,000 World

Stars of Pool Parade

Pocket billiards specialist Gene "The Glove" Catron of Louisiana pauses before attempting to sink 50 balls simultaneously on four tables with one shot. Catron performed the trick shot exhibition prior to the national 8-ball championship in the Lite Beer $200,000 World Series of Tavern Pool at Caesars Palace, Las Vegas.

(L-R) Lite All-Star Steve Mizerak; 2nd place winner of 8-ball Ernesto Dominquez (Silmar, California); 1st place winner John Shuput (Omaha, Nebraska); and Vice President of Chain Sales (at Miller) Charlie Whipple.



Lite All-Star Steve Mizerak presents Lite World Series of Tavern Pool T-shirt to Gerry Cooney. Cooney was in Las Vegas to challenge World Heavyweight Boxing Champion Larry Holmes.

NEWS

Series of Tavern Pool by defeating Ernesto Dominquez, 27, of Silmar, California. Dominquez pocketed $10,000 for taking second place.

"I was nervous until the 8-ball finally dropped," said Shuput after the four-hour marathon match. Shuput won the first match five games to one. Dominquez came back in the second match, winning five games to four, but Shuput prevailed in the third match, five games to three.

This national finals is the richest, offering $200,000 in total prize money, and the largest—with 55,000 people competing nationwide—pocket billiards tournament in the country.

"I have been playing pool for 34 years, and I have never seen anything like this," said Lite All-Star Steve Mizerak, tournament host, billiards Hall of Famer, and five-time world champion. "This tournament is the best thing that has happened to pool players in a long time. Most of the players here are amateurs from their corner taverns."

In the nine ball event, Mike Katsaros of Las Vegas won $25,000 and the first place trophy as he beat John Murray, 33, of Sanford, Maine who took home $10,000 and the second place trophy.

"I am going to hold onto this money for a few days," Katsaros said. "I did not get rattled despite a miscue in the second set. I know the final set made him nervous." The match was hard fought with Katsaros taking the first 5-4 with Murray bouncing back to win the second 5-4. But in the third, Katsaros came out smoking and ran away with it 5-2.

"There was not one top professional in the final five of this nine-ball tournament which means anyone can win this thing," Mizerak said.

Billed as "the premier event of pool," the tournament was designed to promote grass-roots participation at the tavern level.

Valley supplied its *Cougar* pool tables for the event, and CEO Chuck Milhem was thrilled over the outcome.

"We're excited that the tournament was such a tremendous success and are happy that Miller has asked us to join them again for this year's event. This year, Valley will be involved in the tournament from the planning stages, and we intend to work hard for increased operator involvement. Although Miller cannot discriminate between location-owned and operator-owned tables, we are now doubly aware of the importance of operator involvement and will actively solicit that for future tournaments."

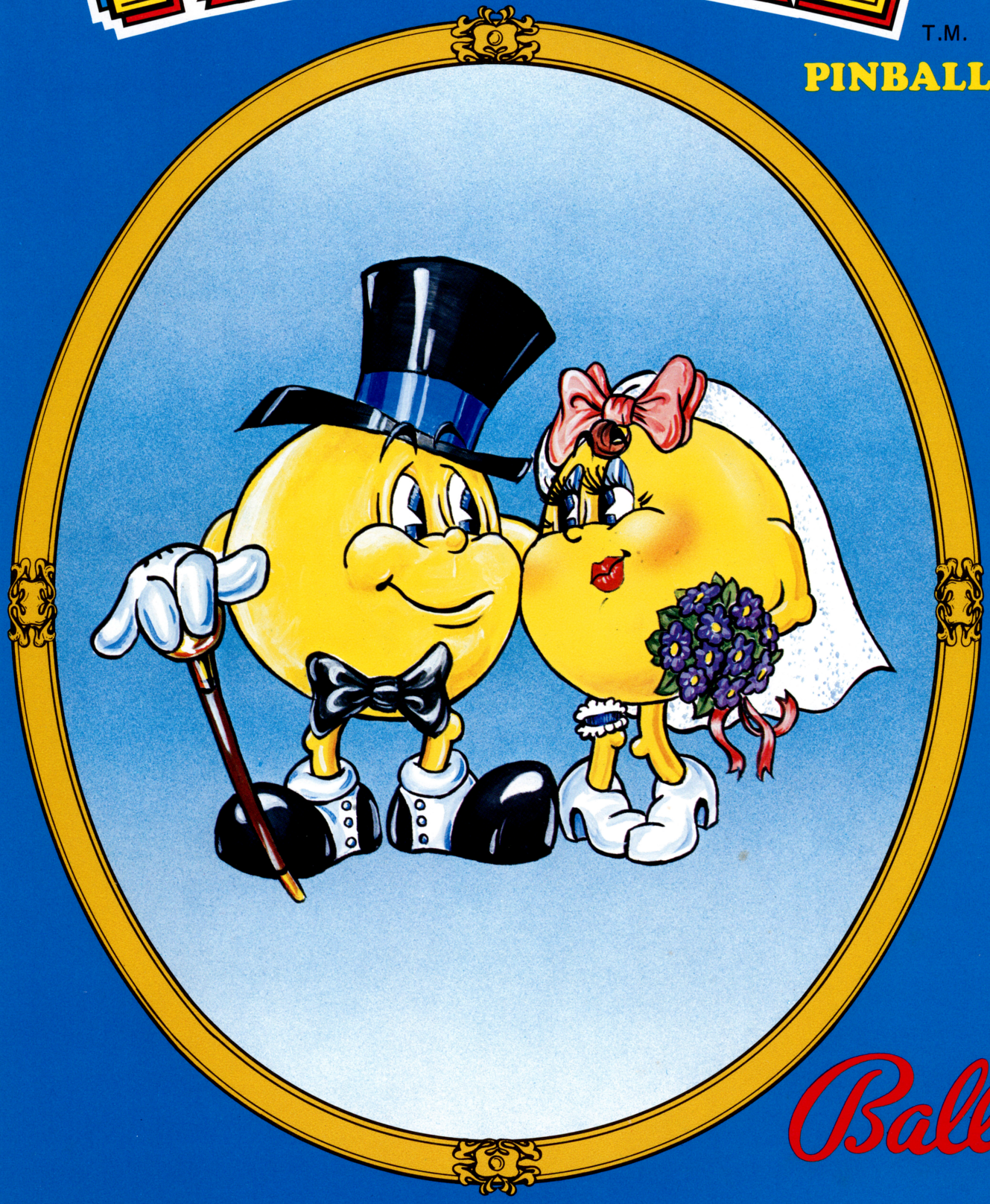
Milhem said that Miller's resources—the firm spent a reported $500,000 to stage the event—and its ability to draw interest helped guarantee the success of the tournament. •

MR. & MRS.

PAC-MAN

T.M.

PINBALL



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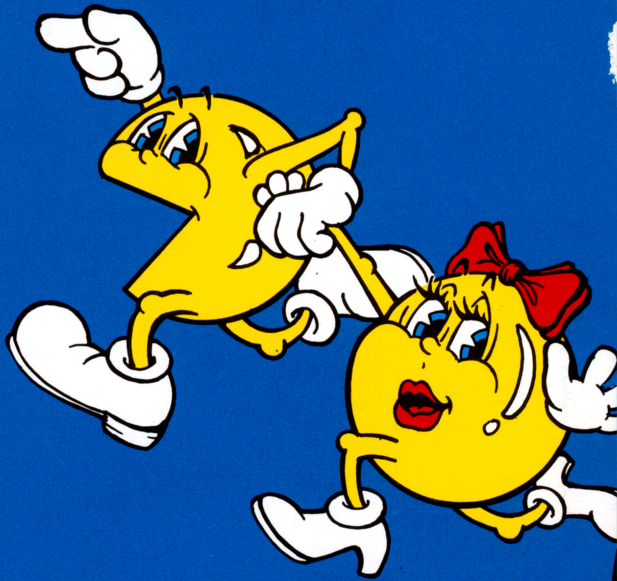

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VIDEOS BY THE BAY

After several months of controversy and deliberation, a San Francisco video task force has developed a new law that will prevent arcades from opening in neighborhood shopping areas.

The task force, appointed by Mayor Dianne Feinstein and chaired by Board of Permit Appeals President Louis Giraudo, produced a law that would, according to Giraudo, "control an industry which has proliferated lately and was having an effect on the community.

"No one was certain what that effect would be," Giraudo said, "but merchants were complaining about youths gathering in front of the places that had the games and nearby residents didn't feel safe."

The new legislation must be approved by the city's Board of Supervisors before it becomes law. Giraudo said he was certain the board would approve the proposed legislation.

"We had 40 separate hearings for permits preceding the formation of our task force," Giraudo said. "The issue was the subject of a great deal of controversy."

Giraudo pointed specifically to an ice cream parlor located in one of the city's shopping areas that had installed three videos.

"The ice cream business was not that good, but he had kids waiting out in the street to play the games," Giraudo said.

Five thousand petitioners asked the city to make the ice cream parlor remove the games and the city obliged.

Under the new legislation, shopping areas will be off limits to arcades, but establishments in those areas may offer up to 10 games according to available floor space. Stores that offer at least 300 square feet of shopping space to their customers may install two games. Thereafter, an additional game may be added for each 500 square feet of shopping area.

Games in those stores must be for "accessory use" only, cannot be operated between 7 a.m. and 3 p.m. on school days, and must be turned off at 10 p.m. on nights preceding school days. The location must be able to control the games with one central on-off switch.

Arcades will be allowed in three area of San Francisco: Fisherman's Wharf, Market Street (San Francisco's main street), and in industrial areas.

There are several exceptions to these limitations. Private or public schools can install the games without restriction. Bars, bowling alleys (only two machines per lane), and billiard halls can add videos without restrictions. Tourist hotels, theaters, churches, hospitals and nursing homes, non-profit community centers like the YMCA, and park and recreation playgrounds all may have games on the premises without restriction. In fact, "we encouraged installation of the games," Giraudo said.

Legal arcades will be bound by a 30 square feet per game requirement, and no games at all will be allowed outside of but within 300 feet of a school or playground.

Giraudo said operators led the fight for tough regulation inside arcades. He said operators were well represented at the hearings and on the board of nine members that formed the task force. Atari's general counsel Karen Witte was a member of the force as was a representative of the San Francisco operator association.

Witte told *Play Meter* she felt Atari's participation helped get better representation for industry concerns during the extended sessions that led to the proposed legislation.

"While we would prefer that there be no restrictive regulations on video games," Witte said in a prepared statement, "we always appreciate the opportunity to offer an industry perspective to city council groups.

"In San Francisco, one of the major issues was game placement and quantity. A secondary issue was the establishment of appropriate standards for supervision over the premises. A great deal of effort was spent in addressing these concerns in the ordinance.

"We feel the proposed ordinance better represents the industry concerns as a result of Atari's participation. However, as with any committee decision, the proposal represents a compromise of interest and therefore does not reflect 100 percent of any one viewpoint." •

GOVERNOR VS. MAYOR

"It's the worst piece of demagoguery you've ever seen."

That's how Ira Zaleznik, attorney for the Coin Machine Industries Association of New England, described the battle between two licensing boards in the city of Boston over which board has the right to collect fees from amusement operators.

Mayor Kevin White took the offense in May when he instructed Joanne Prevost, licensing commissioner, to enact a moratorium on issuing game licenses in Boston. The moratorium was scheduled to last about 45 days, the time the board takes to grant an application, thereby rendering the

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moratorium useless.

In attempting to provide rationale for greater control over the coin-op amusement industry in Boston, the mayor's commissioner cried out against the proliferation of games in the city, estimating the video population at 4,000.

Zaleznik denied that figure, saying his estimates and those of the association are that there are about half that many games in the city.

Zaleznik said a reporter for the *Boston Globe* wrote that the moratorium was intended to pave the way for White to put pressure on businesses profiting from the games for political contributions.

The governor's appointed city licensing board contends it is their right to license the games, which they currently do at $140 per machine. That agency has filed suit against the city over the issue.

Meanwhile, operators must grapple with the hardships of the double imposition of governmental agencies. Some are even paying the mayor's board a $70 per machine fee in addition to the fee they have already paid to the governor's agency.

Additionally, the agencies, in providing justification for the collection of such high fees, are administering licensing duties with abandon. Mayor White has sought the aid of the city's building inspector to further regulate the games. That agency was quick to reclassify any premises housing even one game as a "recreational center conducted for profit." The building inspector then decided that such centers could only be located in specific zones in the city. Centers outside those zones must obtain special zoning approval.

Zaleznik said the video game industry is being used as a political football because "you can only gain votes by opposing the games in Boston." •

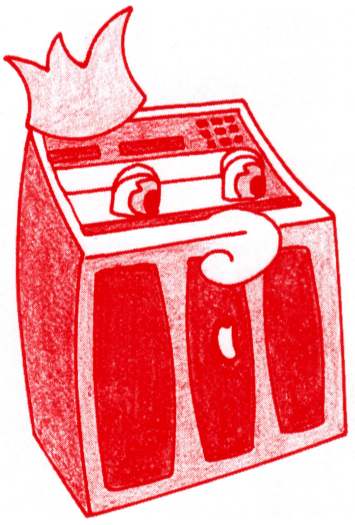
"PAY IT," AMOA SAYS

The Amusement and Music Operators Association (AMOA) has instructed its members to pay the $25 jukebox license fee currently sought by the U.S. Copyright Office.

In a press release dated June 1, AMOA made its official statement pertaining to the collection of an additional $17 jukebox royalties this year:

"AMOA will be filing a petition for a writ of *certiorari* with the U.S. Supreme Court pertaining to the decision reached by the U.S. Court of Appeals for the Seventh Circuit.

"If the U.S. Copyright Office notifies operators currently in compliance with the law for the additional $17 per license, AMOA advises its members to pay the additional amount. Operators are urged to send a letter to the Copyright Office with their payment indicating they are paying



under protest and expect a refund, with interest, if the U.S. Supreme Court should overturn the decision upholding the legality of the fee."

The Copyright Royalty Tribunal's decision to raise the jukebox fee was upheld in the appellate court on April 16. (See *Play Meter*, June 1, p. 16.) •

VANCOUVER BANS MINORS

In Vancouver, British Columbia, it's illegal for minors to play video games. In fact, it's illegal for minors to even be on the premises where video games are part of the business.

That fact was recently upheld by a Supreme Court justice for the province of British Columbia who held that two small business operators who included three video machines each as part of what they offered their customers could not allow children under 18 in their stores.

The business owners, Hail Park and Song Hi Lee, petitioned the court for a ruling that the regulation should not apply to businesses that house less than four games and that the Vancouver City Council did not have the power to enforce such legislation.

Allison King of Coastal Games Ltd., a Vancouver distributor, said that the law banning minors from establishments with coin-operated games has been in effect since the 1930s but was not enforced until this summer.

"Right now the only opposition to the enforcement of the law is coming from individual operators. We don't have an association or organization here that is powerful enough or organized enough to help," King said. •

April and May were service school months at New Way Sales Co. Eight different service schools were held at New Way's facilities at 2050 Kipling Ave. in Rexdale, Ontario. The schools were conducted by the Field Service Engineers from Williams, Stern, Bally/Midway, Atari, Gottlieb, and Gremlin/Sega.

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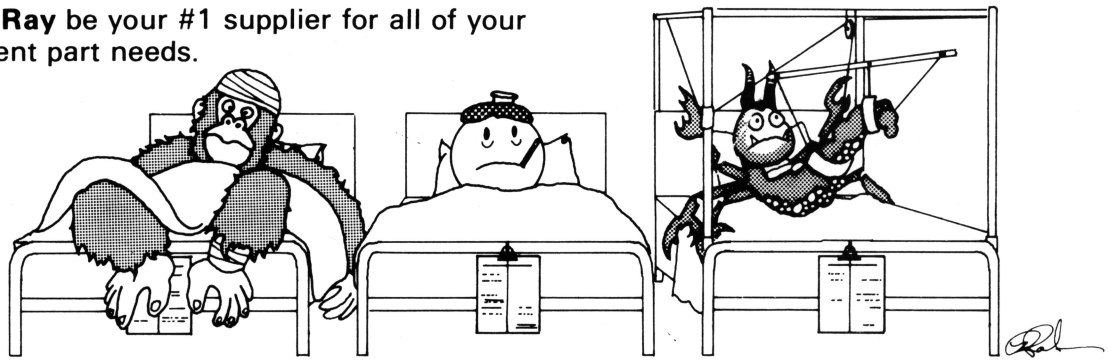

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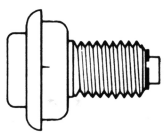

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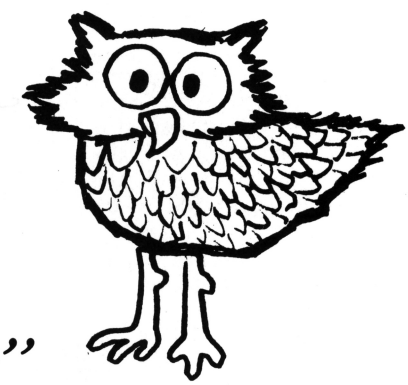

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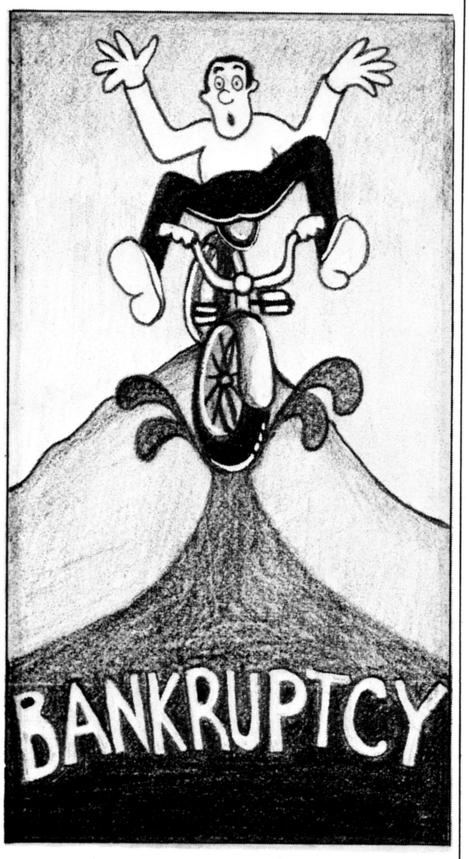


American Game Exchange of San Diego, California, is finding it wiser to quit than fight. The firm, which has spent the last couple of years peddling video game business opportunities, has succumbed to legal and financial pressures and is filing for bankruptcy.

The firm had been operating under a Chapter 11 bankruptcy classification that allowed American Game Exchange to continue doing business while it set aside earlier debts. But now, with no hope of meeting its financial obligations, the firm is asking the court's permission to clear its record via total bankruptcy and subsequent liquidation.

Just recently the company's president, Bradford Lynn Edwards, was arrested for video sales fraud in California. (See *Play Meter*, July 1, p. 21.)

Martin Debusman of Creative Business Enterprises in Colorado told *Play Meter* that his firm and at least two others in that state have invested $10,000 in the American Game Exchange business opportunity program and are waiting for the firm to find them locations for machines that they are to receive at the completion of that $80,000 deal.

When Debusman discovered the bankruptcy proceedings, he also found out the California bankruptcy court was unaware of the company's Colorado investors.

"Also, we believe the company made its proposals to us when it was already in Chapter 11, but American Game Exchange did not tell us that," Debusman said.

He said he thought the court would also find some investors in New Mexico that could be affected by the company's demise and liquidation. •

PIZZA TIME, SHOWBIZ SETTLE DISPUTE

Pizza Time Theatre Inc. has reached a settlement in its two-and-a-half-year lawsuit with Brock Hotel Corp. and ShowBiz Pizza Place.

The settlement calls for the granting of a license to Brock and the payment by Brock and ShowBiz of $750,000 in a lump sum cash payment plus monthly percentage payments on the gross sales of the first 160 units of ShowBiz Pizza Place.

The percentage payments started June 26 and will be paid at the rate of 1½ percent for the first six years, 1¾ percent for the next four years, and 2 percent for the next four years, for a total period of 14 years on each ShowBiz store.

ShowBiz Pizza Place has more than 70 units in operation. If the 160 unit level is reached, it's estimated that Pizza Time will receive approximately $300,000 per month from Brock. Pizza Time estimates that this settlement could be worth in excess of $50 million over the next 14 years.

The settlement is still subject to approval by U.S. District Court Judge Robert Schnacke. The parties have jointly petitioned for such approval.

The settlement arises out of litigation begun in January 1980 when Pizza Time Theatre sued Brock (then known as Topeka Inn Management) for breach of its co-development agreement. Brock had agreed to go into the Pizza Time Theatre business as a co-developer in a 16-state exclusive territory covering the midwestern and southern United States.

Brock attempted to terminate the co-development agreement and go into the same business as ShowBiz Pizza Place. When Brock gave notice of the termination, Pizza Time Theatre immediately filed suit.

In September 1981, a partial trial of the case was held. It was determined that certain Brock defenses to this case would not be allowed. Thereafter, the parties entered into extensive negotiations that resulted in this settlement. •

CORRECTION

In the News department of *Play Meter*'s July 1 issue, we reported that Southwest Vending had been acquired by Morgan's Restaurants Inc.

That statement is incorrect. An "agreement in principle" to acquire Southwest's parent firm, Southgate Enterprises, was released by Morgan's public relations firm, Booke and Co. on March 31.

When *Play Meter* learned of Morgan's interest in other distributorships, *Play Meter* publicized what had been confirmed by Booke to be its earlier Southwest acquisition along with the information that the Kentucky Fried Chicken franchiser was pursuing additional distribs.

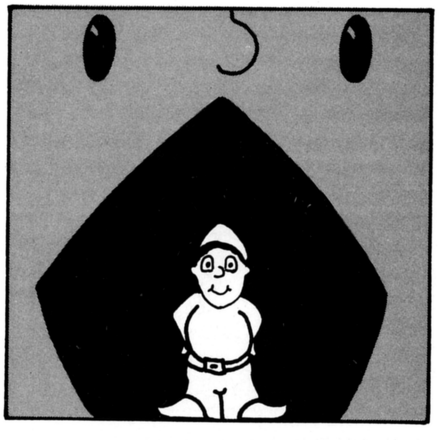
Play Meter has now learned that the previously announced agreement was terminated on May 18, although neither Morgan's nor Booke sent a follow-up release to *Play Meter* expressing the change of heart.

Play Meter apologizes for any inconvenience caused to Southwest Vending by the story. •

K.C. TO CHASE AGAIN

While it waits for the Supreme Court to decide whether or not to hear its appeal on *K. C. Munchkin*, Odyssey has developed a similar home video to market in lieu of *Munchkin*: *K.C.'s Chase*.

The game is changed; only the character remains the same, indicated Odyssey's Ed Williams. He said that the company



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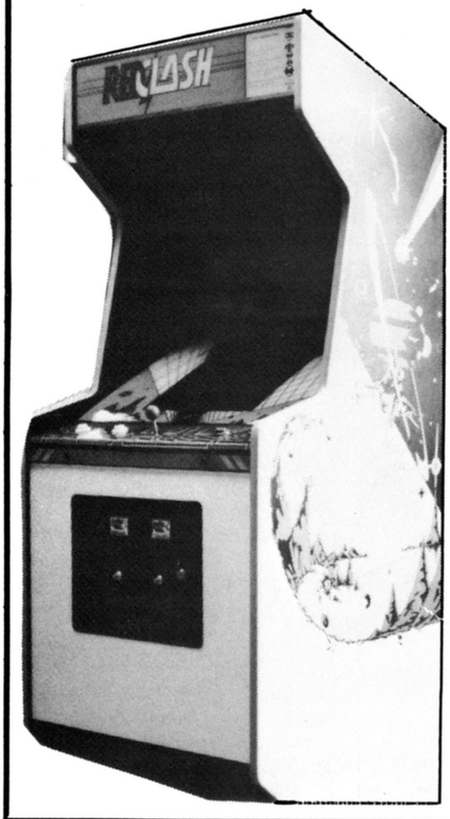

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THE CALENDAR

July 16—17
Montana Coin Machine Operators Association convention, Outlaw Inn, Kalispell, Montana

September 10—11
Wisconsin Amusement and Music Operators, Paper Valley Hotel and Convention Center, Appleton

September 10—12
Joint North and South Carolina Associations meeting, Radisson Plaza Hotel, Charlotte

September 24—25
West Virginia Music & Vending Association convention, Ramada Inn, South Charleston, West Virginia

October 7—10
NAMA convention and exhibit, The Rivergate, New Orleans

October 14—17
ENADA (exhibition of coin-op amusement machines), Congress Building (EUR), Rome, Italy

October 15—16
Amusement and Music Operators of Virginia, annual convention and trade show, John Marshall Hotel, Richmond

November 18—20
AMOA Exposition, Hyatt Regency Downtown, Chicago

November 18—20
IAAPA annual convention (Parks Show), Bartle Hall, Kansas City

1983

January 10—13
ATE 39th Amusement Trades Exhibition, Olympia, London, England

March 25—27
Amusement Operators Expo '83, Hyatt Regency O'Hare, Chicago

NEWS

designed this game safely outside the parameters of similarity to *Pac-Man*.

The U.S. Court of Appeals for the 7th Circuit in Chicago gave Atari, who holds home video marketing rights to *Pac-Man*, a favorable ruling over Odyssey in March. At that time the court found Odyssey's game "not only adopted the same basic characters but also portrayed them in a manner which made *K. C. Munchkin* appear substantially similar to *Pac-Man*." (See *Play Meter*, April 15, p. 15.) It was a reversal of a lower court ruling.

Currently, Odyssey is challenging the appellate ruling at the Supreme Court level. The court has not yet said whether or not it will hear Odyssey's appeal.

"K. C. turns cartwheels as he progresses," Williams said. He outlined the difference from the earlier *K. C. Munchkin*. "He chases a caterpillar-like character and tries to take out sections of the caterpillar behind his head before getting devoured by the caterpillar's head."

The home video game is scheduled for introduction in early fall. •

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ENGLAND CONSIDERS COPYRIGHTS

Sega Enterprises is leading the way in an effort to establish that video games are copyrightable under English law.

Sega is pressing its suit against Alca Electronics, an English firm, that Sega contends has infringed on its rights relevant to *Frogger*.

The British trades report the latest round in that fight has been won by Alca. In an Appeal Court May 25, Alca won the right to keep under wraps the identity of customers to whom they have sold the allegedly pirate *Frogger* games. Sega wanted the information to pursue action against those customers, reported the trades.

"This case," editorialized the British trade journal *Coin Slot*, "must surely alert licensees and caterers to the fact that the big machine manufacturers could be gunning for them for operating allegedly infringing machines, as well as for those who are producing the machines."

Lord Justice Lawton, who issued the ruling as part of a three-judge panel which included Lord Justices Templeman and Fox, said that in his judgment the issue of copyright in video machines should be decided before the question of revealing names and addresses of those placing machines should be decided. He also pointed to the fact that, in England, copy-

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right had not been established for video games.

However, he did indicate that if it was decided that Sega did have copyrights in connection with the game, it would be entitled to information about where the games have been placed. •

VENDING PROFITS REPORTED

Slightly more than half of the vending companies reported higher net profits for 1981, compared to 1980, although 68.8 percent achieved sales increases, according to the annual "How's Business" survey conducted by the National Automatic Merchandising Association (NAMA).

"Geography made a big difference in the survey results," said NAMA President G. Richard Schreiber, "as member firms in New England, the Southwest, and in the Rocky Mountain states reported better sales results than the national average."

The nationwide study, conducted by the NAMA statistical and research department, covered reports from 276 operating company member firms.

Vended product sales were reported higher by 68.8 percent of the participating firms, 14.5 percent were even with 1980, and 16.7 percent had lower sales in 1981.

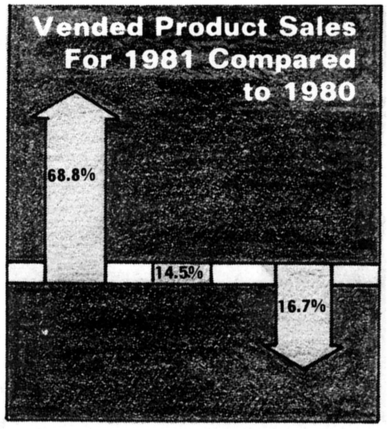
Net profits were reported higher by 52.7 percent of the companies, lower by 31.5 percent, and 15.8 percent said there was no change in profits from 1980 to 1981.

"It is obvious that the effect of the recession was selective in 1981, hitting some parts of the country severely while others nearly escaped its effect," Schreiber stated.

Net profits were better than the average in the East, New York and New Jersey, and in the Southeast. The profit picture was least favorable in the Northwest (only 18.2 percent did better than in 1980), in the Rocky Mountain area, and in the Great Lakes area, where 43.7 percent had increased profits but 35.2 percent had lower net profit (compared to the 31.5 percent lower national average).

Those reporting higher volume credited primarily higher prices (76.3 percent of those reporting) and new accounts (71.6 percent of those reporting), while 28.4 percent cited greater unit volume of vended products per machine.

Vending companies that reported "manual" sales (foods and beverages sold other than through vending machines) said volume was up for 60 percent of the participants, 21.2 percent held even with 1980, and 18.8 percent reported lower manual service sales.



Asked to estimate sales forecasts for 1982, 60.8 percent of the companies expect higher volume, 21.2 percent expect to stay even with 1981, and 18 percent foresee lower volume.

Reports of unit sales by product categories (asked for the first time in the current survey) were mixed, but unit sales of confections and snacks improved for most of the reporting companies.

Vending machine buying plans were most favorable for glassfront snack machines (79 percent plan to purchase) and hot beverage vendors (76.3 percent). At the lower end of buying plans, 44.4 percent expect to buy can or bottle beverages, 37.8 percent will purchase canned juice/milk machines, and 27 percent plan to purchase pastry vendors. •

CITIES ATTACK TRUANCY

Cincinnati's City Council and St. Louis's Board of Aldermen are considering proposals to keep school-age youth from playing video games in hope that restrictions will reduce truancy problems.

In Cincinnati, the City Council wants games turned off during school hours, but Paul Nemann, an attorney representing the Mid-State Theatres there, said his client, who operates several games in each of its theaters around the city, has requested that he file a letter of objection to the council's proposal complaining the effort by the city is unconstitutional.

Nemann said that since the city alleges the games cause truancy, and on the basis should be restricted, its actions are "clearly unconstitutional" as found by the Supreme Court in the *Aladdin's Castle vs. City of Mesquite* case. (See *Play Meter*, April 1, p. 66.)

Nemann does not expect the case to come to litigation, but he hopes that the city will drop the hourly restriction clause before it attempts passage. The ordinance would result in a $100 fine to the location if minors were discovered playing during school hours.

In St. Louis, Alderman Virvus Jones wants to require teenagers to get their parents' permission before they are allowed to play. He believes, said one of the city's newspapers, "this would make the teenagers' bad habits disappear."

Jones wrote his bill after he became convinced that elementary and high school students were skipping school to play arcade games. The bill would classify any business housing two or more videos as an arcade. Such a business would be subject to the parental consent rule.

The St. Louis Aldermanic Public Safety Committee agreed to meet to approve the bill, and then submit it to the full board of Aldermen. •

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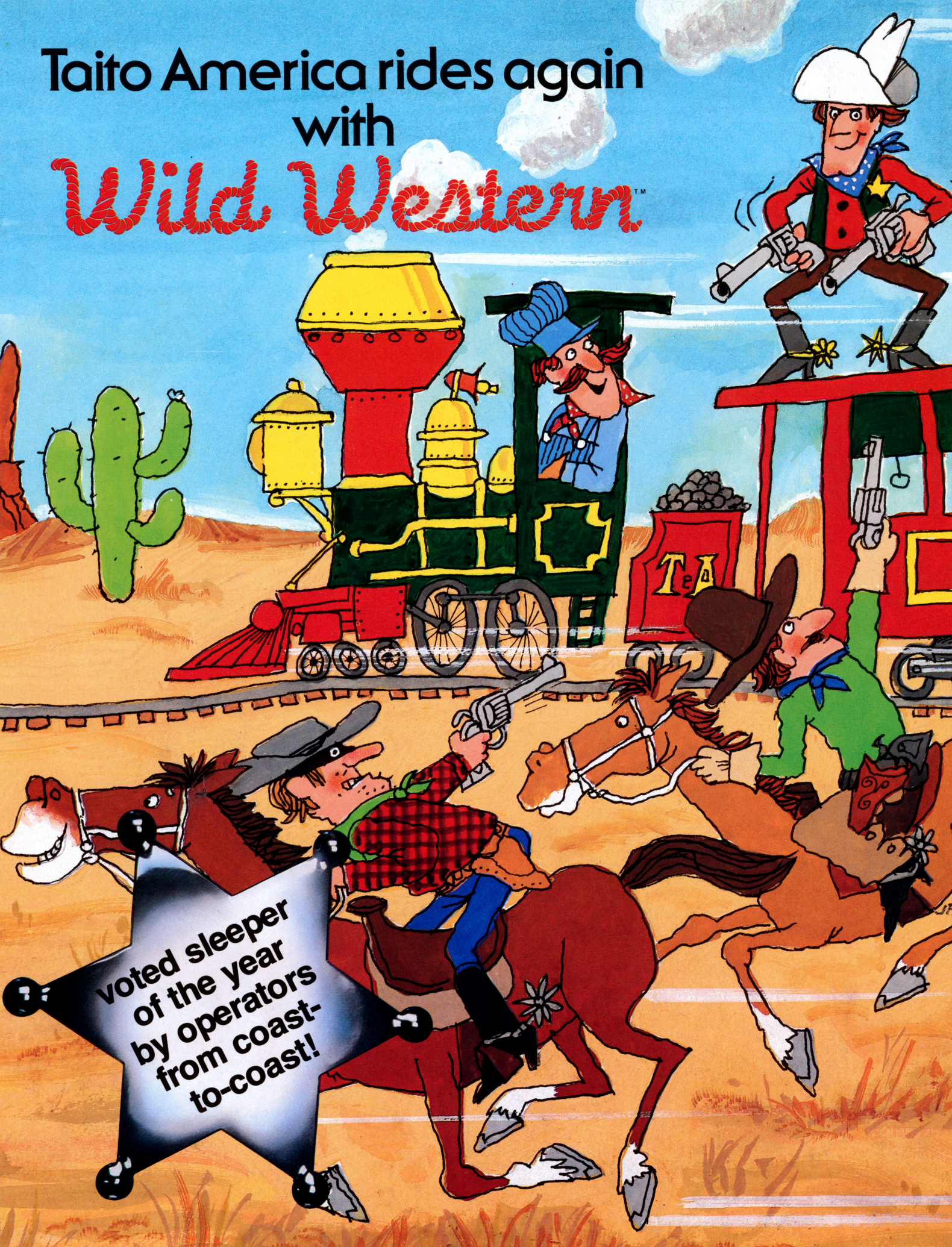
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If a low-down varmint jumps on top of the train, the only way players can get him is to jump on the train themselves and gun him down. But if the train's passing a low water pipe, players must quickly lie down or be thrown from the train. When their horse gallops close to the train, they can jump back in the saddle again. If 3 hombres get on top of the train or players get knocked off their horse 3 times (adjustable) in this saddle-up shoot-'em-up, it's Boot Hill!

Each time players wipe out a band of outlaws, they get to practice their aim. Their horse will toss a silver dollar in the air and they'll get 1 chance to shoot it for bonus points. A total of 50,000 points (adjustable) earns them another chance to knock out the gunslingers.

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MOT LOOKS TO FUTURE

The Music Operators of Texas (MOT) completed its annual convention with an appointment the association believes will make the coming year the most productive in its history. The Texas operators have hired Don McCullough and Association and Society Management Inc. to direct MOT for the coming year.

Until the appointment, volunteer personnel conducted association business.

"Now," offered MOT President Dock Ringo, "Members can be assured that when they pay their dues, the money will go to an organization that is professionally run."

The agreement was the highlight of the MOT convention held June 3-5 at the American Hotel in Ft. Worth, Texas.

The association also used the convention to announce its manufacturer of the year award winner, the Dynamo Corp.

Dynamo assisted the state association by sponsoring its member operator state pool championships and "did more than anyone could have hoped for," Ringo said.

"They filled in where the association left off by supplying the tables, trophies, and even prize money we couldn't come up with," Ringo told *Play Meter*.

Additionally, Dynamo came to the finals with two surprise gifts—a home pool table to the tournament champion and a coin-op table to his sponsoring operator. The second annual MOT tournament was held March 21 in Austin, Texas. •

ATARI REWARDS DEED

Atari rewarded two New Jersey youths who played in a video game marathon to raise funds for Tommy Mitchell, a 10-year-old in need of a $60,000 kidney transplant.

In an attempt to raise monies for the To mmy Mitchell fund, Jimmy Hallahan, 17, and Michael Spinak, 16, recently played the Atari *Missile Command* coin video game for 50 consecutive hours at the Twin Rivers Amusement Center in Hightstown, New Jersey. They raised a total of $1,200 through pledges and contributions.

"We felt this special deed and unique application of video games should not go unrecognized," said Raymond E. Kassar, Atari CEO. As a result, Atari rewarded the boys with an all-expense paid trip to its headquarters in Sunnyvale, California, where they were presented with a matching funds check for the Tommy Mitchell fund in the amount of $1,200.

The youths departed from New Jersey on June 6 and arrived in California four hours later. They were greeted by a full schedule of activities commencing with a complete tour through the facilities, including the company game room and a visit to nearby San Francisco.

Upon return to New Jersey on June 9, the boys presented a total of $2,400 and an Atari Video Computer System and selected cartridges to their friend. Tommy Mitchell. •

GETTING SPECIAL CARE

Patients and staff enjoy the challenge at Philadelphia's Children's Hospital, the nation's oldest care center devoted entirely to children.

Active Amusement is actively committed to creating goodwill for coin-op dealers in its community. The Philadelphia distributor is involved in two projects that bring the fun of coin-op competition to people who don't have the opportunity to frequent local arcades.

On May 7, Active donated five games to Children's Hospital in Philadelphia: Atari's *Warlords*, Exidy's *Bandido*, Taito's *Zarzon*, Atari's *Breakout*, and a Kaye bumper pool table. The event was covered by three local television stations that aired coverage during their evening news programs.

Active's vice president, Frank Ash, noted: "We are excited at the prospect of contributing to making a child's hospital stay less traumatic and putting the children more at ease in their new environment."

Active's other recent philanthropic venture was to help provide a game room at a home for the elderly. Tenants at the Robert Saligman Home decided they wanted to use some of the money donated to the institution for a game room, and Active was excited enough about the idea to match the home's funds. With this financial boost, the home was able to purchase an Atari *Asteroids*, Midway's *Ms. Pac-Man*, a pool table, a shuffleboard, and a Midway *Space Invaders*.

"As soon as our truck pulled away, the tenants lined up to play," said David Gilfor of Active. "The game room has become the most popular spot in the building. The tenants are probably practicing in anticipation of challenging their grandchildren and great-grandchildren when they come to visit." •

TORNADO TABLES TWO

Tornado's table soccer college connection has turned a dividend for the firm in Gary Bartlett. Bartlett has signed with Tornado to help expand its table soccer presence via the scholastic market.

At about the same time, the company announced an agreement with Frank Seninsky of Alpha Omega Amusements of New Jersey to market its foosball tables in the northeast region of the United States.

Bartlett had helped conduct the Association of College Unions International annual table soccer tournaments when he became familiar with Tornado as a sponsor of the event. He will concentrate on bringing Tornado table soccer to colleges, high schools, and church markets.

"Gary is highly respected through his active involvement with the association," noted Ed McCloud of Tornado. "He will definitely be an asset as Tornado seeks to establish table soccer as an intramural/extramural sport and our quality table as standard equipment in the education system."

The Tornado table is prevalent in Oklahoma, Texas, and other southern market areas, McCloud said. He hopes the agreement with Seninsky will bring prominence to the table in 13 northeastern states. Seninsky will market the Tornado table soccer piece in Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, New Jersey, Delaware, Maryland,

SHORT SUBJECTS

Republican Rep. **James Coyne** of Pennsylvania is using video games to lure lobbyists to a political fund-raising party on Capitol Hill.

Coyne is asking $200 apiece from attendees to the Capital Hill Club to help him retain his seat this fall. To guarantee interest in his affair, he has hired eight *Pac-Man* games to provide entertainment at the party.

By using the games to spice up his contribution drive, Coyne is getting double mileage out of the word "Pac," which also refers to political action committees formed by corporations to donate money to candidates.

* * * * *

Leslie Hauser has resigned from Exidy. Formerly vice president of administration, Hauser contributed six years of service to the company, She gave no indication of immediate future plans. Hauser and Exidy President **Pete Kauffman** jointly stressed that the parting was amicable.

* * * * *

Showbiz Pizza Place has opened its first franchised restaurant. The Nashville, Tennessee, site will join 75 Showbiz Pizza centers currently open in 19 states. Franchise owners are **Gordon Prince** and his wife, **Betty Mercy-Prince**.

* * * * *

Royal Distributing of Cincinnati, Ohio, has added Cinematronics products to its menu. **Joe Westerhaus**, president of Royal, hailed the addition of Cinematronics' *Naughty Boy* and *Jack the Giantkiller*.

* * * * *

Atari has announced a joint venture with Lucasfilms Ltd., the California film company that produced "Star Wars." Under the agreement Atari will utilize the film company's developments in computer technology and special effects.

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Virginia, and West Virginia.

Seninsky operates games in colleges throughout the northeast region of the country, and Tornado's connection with college unions was a major factor in the Seninsky agreement, McCloud said.

As part of that agreement, Seninsky will co-sponsor four of the 15 regional competitions that lead to the College Union International foosball finals.

Tornado is currently promoting its table via a spring/summer tournament schedule which, McCloud reported, has nearly completed its schedule. Thirteen tournaments were scheduled for this season in sites from Tennessee to Texas. •

7-ELEVEN CROWNS CHAMPION

After four hours of heated competition, Tim Collum of Boyd, Texas, emerged the winner of the first annual Texas Video Game Championships benefiting the March of Dimes.

Collum won a $1,000 cash prize and two full-size video games. A $5,000 donation to the March of Dimes was also made in his name.

The tournament, co-sponsored by 7-Eleven stores and the Dr. Pepper Co., began in April at 7-Eleven stores throughout the state.

Collum, who had advanced to the state finals through the grueling rounds of elimination play, was also the state winner on *Pac-Man*. Also advancing through eliminations were Alex Dubler of Austin, the state winner on *Tempest*, and Billy Joe Cain of Freeport, the state winner on *Defender*.

The three then battled it out on three of the nation's newest video games: *NATO Defender* from Pacific Novelty, *Space Dungeon* from Taito, and *Zektor* from Sega/Gremlin. Following the unveiling of the new games by 7-Eleven emcee, Dan McCurdy, the three contestants were given brief familiarization sessions by the respective manufacturers Bill Cravens, Mike VonKennel, and Bob Harmon.

John Gatens, president of Southwest Vending Sales Co., and Tommie Chatten of Southwest's Dallas office, assisted 7-Eleven in coordinating the new equipment that allowed contestants to show overall proficiency rather than duration.

The contestants had 10 minutes on each of the new games to add cumulative high scores. Collum was the winner with cumulative points of 262,535. Cain was second with 254,205, and Dubler third with 237,155. •

SNAPSHOTS

Lawrence H. Kesselman has been named national sales manager of Original Equipment Manufacturing sales for the Wico Corp. of Illinois. Wico offers parts, supplies, and accessories to the coin-op industry. Kesselman will develop new markets for Wico's products in the commercial pin game and video industry, as well as promoting other Wico manufactured items.

The 1982 World's Fair in Knoxville, Tennessee, is offering visitors a view of one of the year's great international phenomenons, *Pac-Man* fever. This exhibit features products that display the popular character.

Myrel A. Gordon is the new executive vice president of Bally Manufacturing's Aladdin's Castle Inc.

Gordon will direct the arcade chain's leasing activities in accordance with the company's expansion and diversification programs. Bally's Aladdin's Castle now owns 341 family amusement centers throughout the country. Gordon's most recent position was vice president of leasing for Aladdin's Castle.

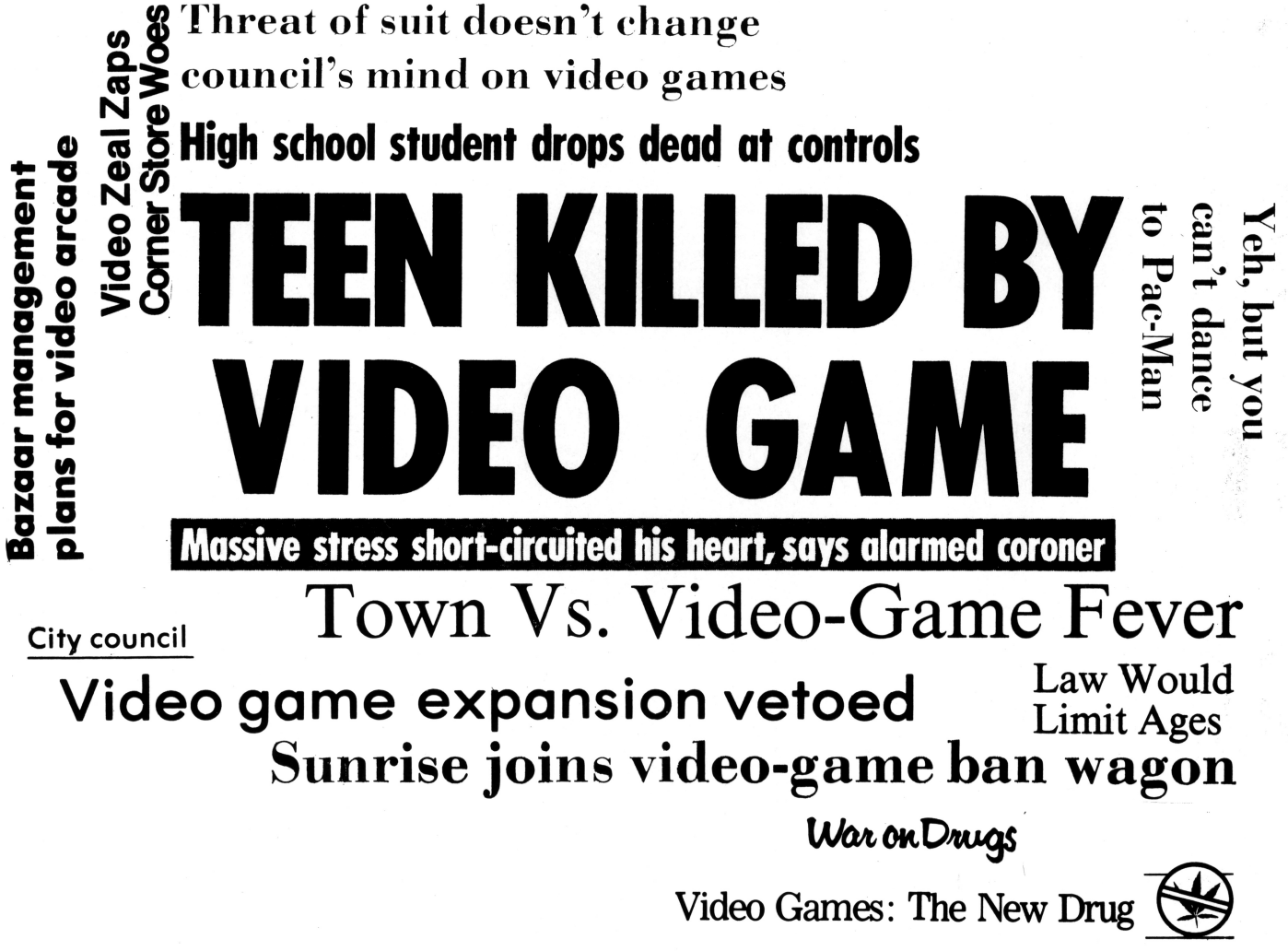
Bally Pinball Division and Bally Midway Manufacturing recently gathered with their European distributors at the Salon Churchill in Monte Carlo for a distributor meeting.

Topics discussed at the meeting were: how to sell pinball in a video market, manufacturing plans for pinball and video for the remainder of 1982, the presentation of new pinball and video products, and copyright protection in Europe.

Pictured here is the entire Bally/Midway European distributor network atop the Sporting Club in Monte Carlo.

THE BAD NEWS OUTWEIGHS THE GOOD

By Mike Shaw



The industry's war against bad publicity is far from over. Recent clippings from the nation's newspapers indicate that sentiment is running heavily against videos.

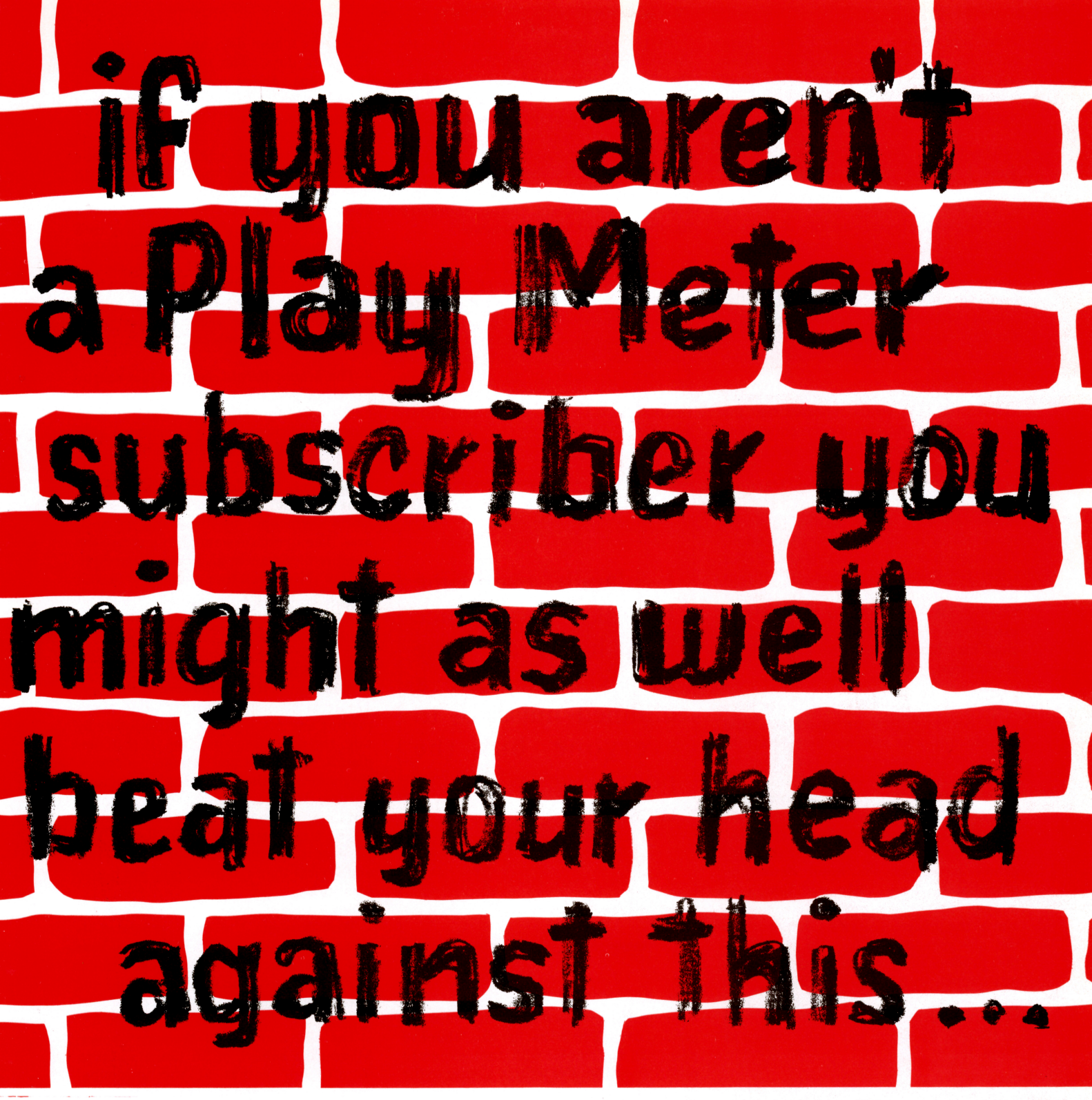
Parents and city councils alike are afraid a video game can corrupt the youth of America. And when several games are set up side by side under one roof, the fears become horrors that the games are some new kind of drug addicting the unsuspecting youngsters.

The bad news

Just one day's clippings produced the following view of the video industry:

—The *Chicago Tribune* reported the city's southside suburb, Burbank, had enacted a 10 percent gross revenues tax on videos and other forms of amusements such as cable and subscription television. The tax was passed unanimously by the city's council, and the revenues will be used to repair streets.

—After a 10-month battle with city officials in San Gabriel, California, the Satellite Entertainment Center has reopened. But, after winning a court battle against a city moratorium on arcades, the owners are still uncertain whether they will be allowed to remain open. The city has filed an appeal to the judge's decision. Another arcade that had been closed, Quick Silver, was unable to reopen. Its owners were forced to give up when they could no longer afford the accumulated



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costs. San Gabriel's Mayor Edward Lara said he was "entirely against video arcades" because they generate drug abuse, vandalism, and delinquency in youths.

—The *Weekly World News* headlined its June 1 tabloid: "Teen Killed by Video Game."

The story went on:

"Shocked players at the Calumet, Illinois, video center were stunned as they watched the 18-year-old youth suddenly slump at the controls of *Berserk* and slowly crumple to the ground...Incredibly, Dr. Albert Willardo, the coroner for Lake County, Indiana, said the tension of playing the game actually killed the high school youth."

Later in the article, after lambasting the video game, the writer reported that the youth "had an undetected heart condition" and was "overweight."

—By unanimous vote, the Dacono, Colorado, City Council approved an ordinance requiring video players to be 16 years old or in the company of an adult. The council action was taken after Police Chief Ted Kozanecki warned city officials there was "definitely a connection between video games and a string of burglaries earlier this year." The article indicated the chief may have had no proof to back his assumption.

—In St. Louis, aldermen want to place high licensing fees on machines, and include one and two machine locations under arcade restrictions. They contend that they have "received numerous complaints from constituents about rowdyism."

—Nora Hamerman, editor-in-chief of *War on Drugs* magazine, wrote that video games have "all the mind destroying potential of drugs." She said that, ultimately, "parents are going to have to take aim at the powerful interests that promote this new menace and own the companies that produce the games...These companies just happen to be controlled by the same personalities and financial interests that make up the cream of what the National Anti-Drug Coalition has made known as Dope Inc."

—In Calumet City, Illinois, the state's attorney has to decide whether to "take the mayor to court" because he issued a license to the Quarter-Horse Fun Center. The City Council wanted the license to go to another business.

—The Camarillo, California, City Council met to consider how "to tighten its control on the games."

—The Yonkers, New York City Council met to discuss an ordinance that would limit the location of games and ban any new arcade openings. The vote was 12 to 1 in favor of the issue.

—Bette Reinhartsen, writing for the Anaheim, California *Bulletin*, reported that "84 percent of the residents and businessmen in the area of 718 North Anaheim Blvd. pulled the plug on a proposal to install 25 video machines, and city councilmen backed their stand."

One businessman, she reported, "pointed out that the attractive nuisance would engender vandalism, noise, burglary, fighting, and additional policing."

—In Philadelphia, Nancy Jo Wynne is leading the crusade to block an arcade opening in the city's 21st ward. She contends "the installation of the games would create a hangout in the area that would be frequented by local youths." Mary Ehrhorn, treasurer of the Upper Roxborough Civic Association, said "the noise those machines make is absolutely appalling."

> I blanch everytime I walk into a place that has them (the games). They are a damned nuisance to everyone but the poor slaves who play them.
>
> —Bill Porterfield

—In Sebring, Florida, a parent complained to the editor that her son, "that I've never had any trouble with, took money to put in *Pac-Man*. I've written a letter to the Majik Market manager and told them that we will no longer shop at their store as long as they keep the machines there."

—The Midland, Pennsylvania, borough council voted in a $100 per machine tax.

"All businessmen contacted," read the article in the Midland *News*, "said their current profits are not high enough to warrant such a high tax."

—Lawndale, California, passed an ordinance prohibiting minors from playing the games between 7 a.m. and 3 p.m. on weekdays during the school year. Playing was also banned after 10 p.m. on nights preceding school days and after midnight all other days. The town's mayor said "numerous phone calls from worried parents and concerns of some teachers prompted her to act."

—Bill Porterfield editorialized in the Dallas *Times Herald* that "these games do indeed exert a hold over our kids that is creepy...I blanch everytime I walk into a place that has them (the games). They are a damned nuisance to everyone but the poor slaves who play them...If the fascination for video games grows, which it appears to be doing, I can see parents hiring de-programmers to save their children from becoming video zombies."

—The *Miami Herald* reported that nearby Sunrise City wants to "join the video game ban wagon" by outlawing the games from most establishments and attaching a $100 permit fee to each game located.

—Residents of Sebastopol, California, convinced the City Countil to not allow Chris Kyriacopoulos to expand his business. The operator wanted to increase the number of videos in his arcade from 20 to 50, but the council thought it best "to wait out...nine months to see what kind of impact the game center has on the community."

The good news

After extracting comments from these 17 articles that comprised one day's reading and placing the objections side by side, the pervading absurdity of the complaints being voiced about videos is laughable. But the way these objections are hurting the industry across the country is certainly not amusing.

The stories from that pile that offer a positive image for videos are more factual and logical than the antithesis, but not so plentiful.

—West Virginia University tabulated its video profits for the 1981-82 school year and determined it had an additional $150,000 to spend on its effort to continue offering quality education to its students.

—The city manager of Webster Groves, Missouri, a suburb of St. Louis, wants to install four games at the municipal swimming pool and ice rink. He estimates the revenue from the games would exceed $7,000 and help the city balance its budget.

—Meyerson Distributing supported an Iowa-Nebraska *Pac-Man* contest. Players entering the competition paid a $1 entry fee that went to the American Cancer Society.

—Bill Cosford, editorializing in the *Miami Herald*, wrote that Brookhaven, New York's most famous citizen, anti-game campaigner Ronnie Lamm, was voicing "an outcry over a phenomenon patently harmless...At last, in video games, we have the new rock 'n' roll." •

Computer program devised for jukebox operators

By Norman Dolph

Two problems every jukebox operator faces:

1. What records have been on which locations?
2. The title strips.

The arrival of the small computer now helps the operator solve these problems in a fraction of the time of "legal card" and typewriter methods.

Stoy Inc. of New York City has developed a program that will run on almost any microcomputer—Apple, TRS-80, North Star, Xerox 820, the IBM Personal Computer, and many others. The size of the route dictates the size of the computer. The original system was for 120 locations, changing five records every two weeks. The program can accommodate any number of locations up to 500, and any number of records in a change in any pattern of changes (i.e. some locations monthly, some weekly, some every other week).

The miracle of the program is: even though you buy 75 copies of a new selection, you only have to type the title strip once for as long as you ever place that record.

Furthermore, the situation of sending your man to a location with five records and five title strips and finding that two of the selections are already on the machine cannot happen, because the computer automatically updates and maintains a perpetual inventory of all the titles that have ever been in each location.

Here is how it works:

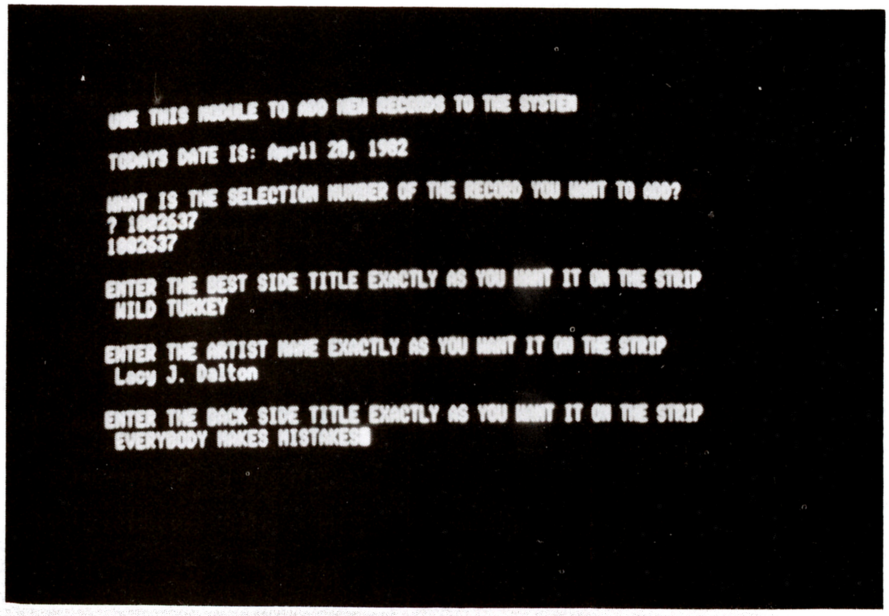
The program comes configured and ready to run on your computer. It is supplied on a floppy disk.

You insert the disk and the program is loaded. You are asked to enter today's date. (The operator only has to enter the date once, and every transaction for that date has that date posted automatically to it. Thus in the future you can tell when you first added a new selection to the system.)

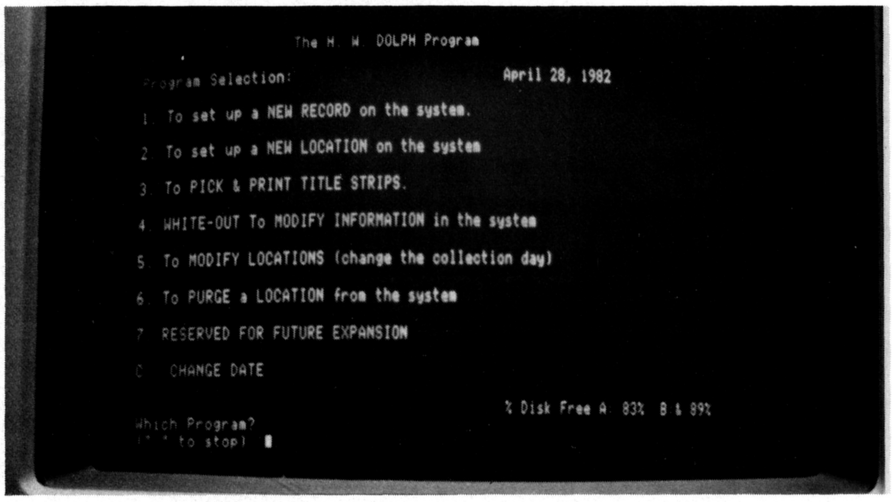
The date is checked for validity (no December 32nds, etc.), and then a menu is displayed giving you the following options.

1. Add A New Location To The System
2. Add A New Record To The System
3. Pick And Pack (layout records, for

The H.W. Dolph Distributing Company installed a Xerox 820 small business computer to take over time-consuming chores.



This is what the operator will see after entering a new record.



These are some of the screens the operator will see as he uses the program.

The computer keeps an eye on the jukebox

For over fifty years, The H. W. Dolph Distributing Company—Howard and his son Dorian Dolph—have run AMI jukeboxes in Oklahoma. They, like many operators, have kept track of what locations have what records by a ledger card, hand posted system. Often records were duplicated on location and several hours a week in posting were required to keep up with 100 locations...to say nothing of hand typing 10,000 program slips a year (actually more like 11,000 considering that at least one in ten was spoiled in typing and restarted).

In March, they installed a Xerox 820 small business computer to take over these chores. The program was written by Dolph's son, Norman, a graduate of Yale in computer design. A session to add new selections and type title strips for a day's collections (typically eleven locations) now takes about five minutes, whereas formerly it took two hours typing, posting to the location card, and posting to the record sheet.

All error free on the first show.

The savings in manpower works out to about $22 per day counting benefits. But more importantly, the operation has been able to avoid hiring a second man to collect. The typist/collection man now has two extra hours in his day, and the operation has twenty percent more growth potential before they need to add another employee.

The system will pay for itself in a year at these rates, and the next step will be to begin coin count reconciliation and return on investment analysis using the computer. And, the computer can be used to burn EPROM's, and as a general purpose word processor for effortless, polished correspondence. •

specific locations)

There are supplementary options for purging locations, printing reports, and correcting entry errors.

Option one...

When you are setting up the system, or if you have added any new locations, you choose option one.

The computer assigns a number to the location, and then you type in the location name, address, phone number, proprietor, and what other data you want to keep a record of about this location and its machine.

Next, the computer asks for the collection day and the cycle on which the machine is serviced, for example, 1st and 3rd Tuesdays or 2nd and 4th Fridays. The operator responds and this location is now, grouped with the others that are serviced on the same day. (As a practical matter, you only need to use option one once at the setup and then again as you add locations.)

Option two...

When all the locations are entered, the computer shows you the main menu again. Now you add new records by selecting option two.

The computer asks for the selection number of the record. You enter it.

The computer asks for the title of the best side (usually the A side, but as you know, sometimes you want the B side title on top), if you try to enter a line that is too long to print, the computer rejects it and asks you to re-enter.

The computer then asks for the artist's name and the back side title.

That's all there is to it. Keep entering as long as you have new records. If you try to enter a record that is already on the system, the computer will reject it. The computer automatically centers the title strip copy as you enter it and displays the strip exactly as it will look when printed.

It may take four or five hours to enter the 300-400 selections that you need to start the system up, but you only have to do this once. Then it takes only a few minutes to enter the new selections you add each week.

Option three...

When all the new records are on the system, you proceed to the selection process. (Option three: Pick and Pack)

The system will ask you which batch are you pulling for (Tuesdays, for example). You make your selection, and the computer will respond with a display of all the locations you see on these Tuesdays, and ask you to verify that this is the batch you are interested in.

If you okay it, the computer will ask you which record you are interested in. You pick up the first new record, enter the number, and the computer will respond with a display of the number and name of every location in that day's batch that has not had this record. (For a brand new record, naturally it will show them all. But

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for a record that you tried out on some locations or an older record that you are "re-cycling" from one location to another, it will only display locations where the record has never been.)

The computer asks you which location number you want to put the record on, and you respond. It keeps asking till you have put this record everywhere you want to put it.

You go through this for all the records you want to put out on location. (The process moves quickly, typically three minutes for fifty records, five to ten locations each in a batch.)

When you are done, you get a re-display and review to give you a chance to make any changes, and then you push "p" to print and—bang—out come the title strips at the rate of one a second.

The computer uses specially prepared title strips with perforated sprocket feed edges. They are continuous belts, and the sprocket holes keep the strips aligned in the printer for high speed printing.

The title strips emerge with a header strip showing the date, the location name and number, and the collection day. Next come the strips for that particular location already sorted. So if you tear the belt at each header, all the strips for a location are together and you can keep them that way till you are right at the machine.

The system contains other modules for correcting input errors, printing out reports of what records have been where, and purging locations from the system.

Any operator who has been considering the purchase of a computer for the accounting side of music and games now has an additional reason to buy one. If the operator already owns a computer, then the only purchase necessary is a good printer and the program. The printer quality is important so the strips have an "executive look" and not like a phone bill typed by computer. A daisywheel printer has letter quality and carbon ribbons just like the top of the line Selectric typewriter.

From scratch, the cost for a system, up to 500 boxes, is about $3,150 for the computer with disk memory, $850 for the video terminal, and $1,500 for a letter quality daisywheel printer. That's $5,500 total for the hardware. (The price of hardware is falling every day...probably by the fall of '82 this package could be available for $750 less and next year even more so.) The Title Strip/Selection Control program is $695, which is all you need to buy if you already have a computer. It comes with extensive documentation and a "hot-line" number should you need help in setting up the system.

Accounting programs are also available to do coin count reconciliation, return on investment analysis, depreciation schedules, and general ledger.

The source for the Software and consultation on hardware purchases is: Stoy, Inc.; 279 East 44th Street; New York, New York 10017. •

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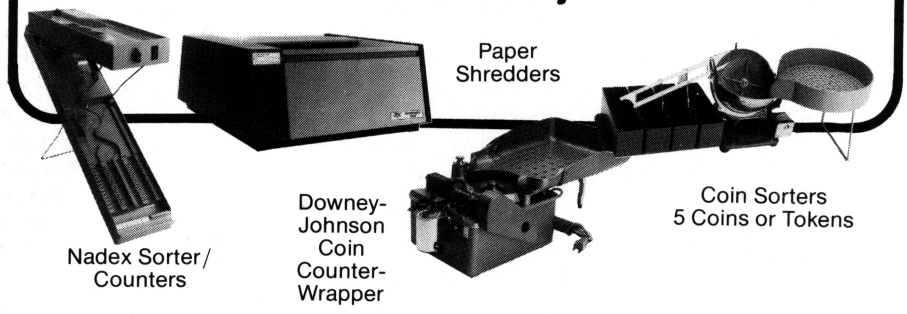
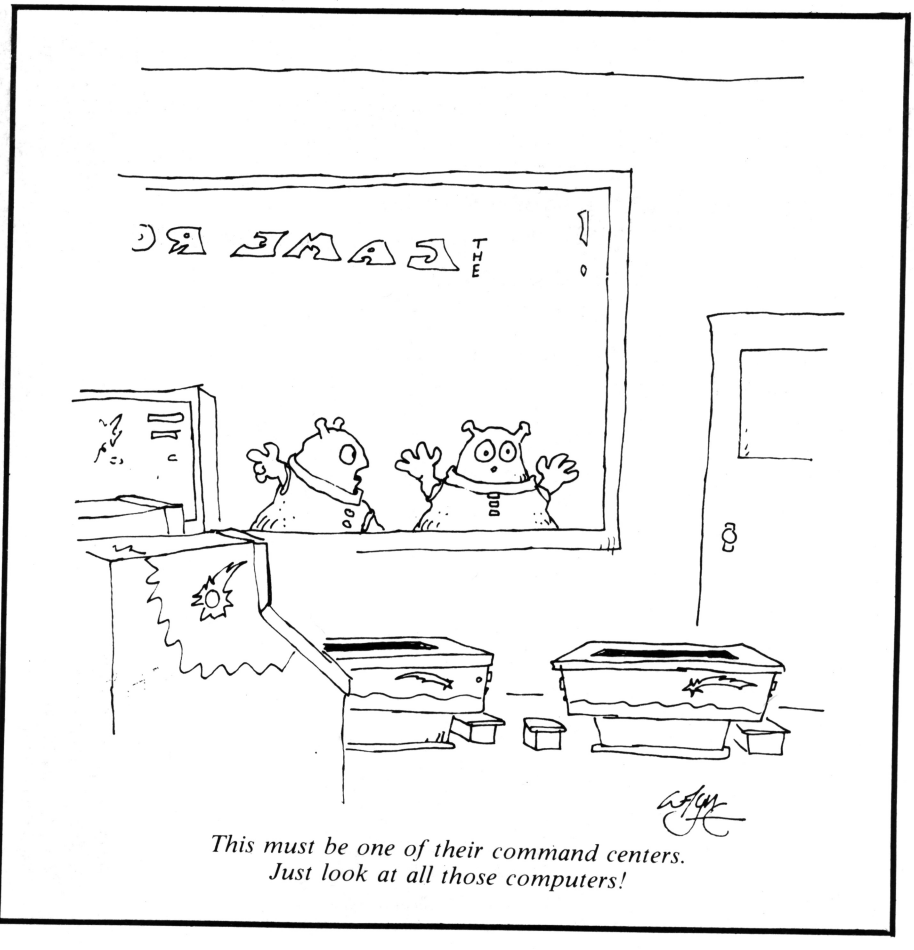




This must be one of their command centers. Just look at all those computers!

There's Method to Video Madness, Exidy Insists

It's easy for a games manufacturer to adopt a fatalistic philosophy in this industry, that chance and fate governs all. There appear to be no principles, no traceable threads of video game success. No one can tell, with any degree of certainty, which games will hit it big and which will die on location. At least, that's the prevailing industry opinion.

As the president of one video game manufacturing firm told *Play Meter* earlier this year, "There's no system, no way to tell with video games...It can't be done...And anybody who tells you he has a system or formula is simply fooling himself...and you as well, if you believe him."

If the fate of video games is to be ruled solely by the whimsical spin of the wheel of fortune ("Round and round she goes, whose game the public fancies nobody knows."), then the industry is in dire straits indeed.

This prevailing industry attitude, by the way, may account, in part, for the present glut of new games on the market. After all, if there's no way to tell which games are good, then it follows that even undeserving games will get their chance for success—at the expense ultimately of the operators who buy them.

The position that nothing can be learned from past video game successes and failures is reminiscent of Henry Ford's defiant assertion that "History is bunk." Ford's own philosophy, that nothing can be learned from history, failed him when his own company had the misfortune to ignore automobile history and put together a car which incorporated all the features the public *didn't* want. It was the Edsel.

Other more sensible industries have long recognized the need to analyze the reasons for their successes and failures, and they use these analyses to point the way to future gains.

Manipulative principles

Even the motion picture industry relies on timeworn principles for its success, as is evident in motion picture sequels—such as the blatantly manipulative *Rocky III*—which are still able to blossom into box-office smashes.

So, in the same vein, it would appear foolhardy for a video game company to ignore certain tried-and-true principles that have contributed to earlier video game successes. One company dedicated to the quest of finding a method to all this video game madness is a relatively small Sunnyvale, California, manufacturer, Exidy, Inc.

Relatively small in relation to its neighbor, that is.

It would have been easy for Exidy to adopt a fatalistic attitude that Chance and Fate govern all, that he video game race doesn't always go to the swiftest. After all, the company is literally surrounded on all sides by building after building (over fifty in fact!) occupied by a video game giant that has become one of America's corporate success stories, Atari.

Standing in the shadows of a video giant like that, perhaps Exidy's president, Pete Kauffman, could have blamed it all on Lady Luck that he's outnumbered more than fifty-to-one on his home field. But the man and his company have adopted a stoic attitude that its fate lies within itself and not within the stars. So Exidy has rolled up its sleeves and done some heavy video game analysis and engineering, all with an eye to turning out exactly the kind of product the public wants to play.

Neighbor's success

Kauffman concedes that maintaining a stoic attitude has not always been easy, especially in the face of the phenomenal success of his next door neighbor. "Sticking with this industry is not as easy as it seems," he confided. That would make sense, especially if success is based on luck alone. But he quickly added, "We're committed to the video game industry. We think people will soon realize we're in this for the long-term."

Exidy's Kauffman, 2nd from right, awards a check to "the Wizzers," a video game design team. The purpose of the in-house competition—to keep the fun elements in the games...as well as to possibly uncover a diamond in the rough.

Indicating Exidy's commitment toward the long-term, Kauffman revealed the company had expanded its research and development department and has dedicated itself to generating all its games from within. It refuses to hitch its hopes on the "stars," or rather Japanese product available for licensing.

"We're trying to bring some new things into the industry," he told *Play Meter*. "And we're taking some risks. So, along those lines, we expanded our research and development department.

"We also decided not to compete in the licensing situations with the big guys because they have, in effect, first crack at all the licensed games because they can produce in greater numbers than us. So for me to license games from Japan doesn't make a whole lot of sense." He also pointed out the practice of committing up front on licensed games makes the whole matter even more unappealing.

Thus, he said, Exidy has turned within itself to turn out product, and that, he insisted, will pay dividends in the end for Exidy and its customers.

"Besides," he said, "it's a helluva lot more fun to create games than license them to the Japanese."

String of successes

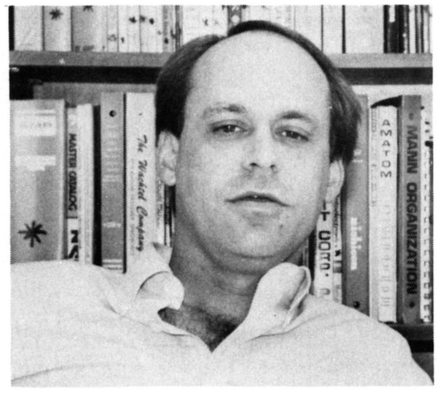
In fact, Exidy has rolled up quite a string of successful licensing agreements with other companies where they license games from Exidy. Those companies, Kauffman said, include Midway, Taito, Atari, Centuri, and Sega.

To keep the fun in the game making process, Kauffman has instituted at Exidy a regular new game creation contest where teams of five employees each—one from each of five different departments within the company—get together to brainstorm on new games. The teams compete against one another for cash prizes. The program was newly inaugurated when *Play Meter* visited the Exidy facility; so it is still too early to tell if any of the team design ideas will actually make it out the door as Exidy product. But Kauffman seems to believe the practice may indeed uncover a diamond in the rough.

Still, it's the teams of professional engineers that the company relies on to develop its video game product. And the Exidy president points with pride to the crew of game designers he has assembled, claiming his engineering department turns out a higher "hit ratio," i.e. more actual game designs that actually make it to the production phase, than probably any other video game company in the industry. "We've probably got the highest per capita hit ratio in the industry," he claimed.

Charged with the responsibility of coordinating these efforts and making sure the video product is acceptable on the marketplace, Exidy recently appointed a marketing analyst as part of the company's brain trust. And brain trust it is.

Arlen Grainger, the marketing analyst, is Exidy's version of Dr. Jekyl/Mr. Hyde. Looked upon as an "average guy" by his co-workers, he is a soft-spoken, self-effacing individual...until the subject turns to his area of expertise, market analysis. And suddenly his co-workers start to back



Grainger: Creating a video game is more science and less guts.

off, as though they are in the presence of some sort of mad genius.

Analytical to the core, Grainger will readily produce chart after chart to illustrate abstractions and conclusions he has drawn about video games. And *Play Meter* spent a few hours recently picking his brain.

Gut feelings

"In the old days, it was all a matter of gut feelings," he started off. "Gut decisions were enough to base game decisions on. And there are some in this industry who have a good feeling for what the public wants. But it's an unreliable method."

His reference to gut feelings being unreliable is perhaps best illustrated by the rise and fall of the television genius Fred Silverman. Silverman, described as having a "golden stomach," was able to confound all experts for many years by accurately predicting which television programs the networks should invest in.

Unfortunately, even golden stomachs suffer from indigestion, and so Silverman eventually fell from grace.

Such is the fate, Grainger seemed to imply, awaiting any company that tries to base its success on guts alone.

Trying not to rely on gut feelings at all, Grainger charts game earnings and life cycles, then scrutinizes the games, trying to dissect everything about the games. He claimed, as a result, to have discovered over 100 verifiable video game principles. We're talking about the skeletal structure of video games here.

Play Meter picked a few of these bones with Exidy's marketing analyst.

What is it exactly players are looking for in the games? *Play Meter* asked him.

Grainger settled back in his chair, his eyes sparkling with delight as he started to talk about his favorite subject.

Classic game

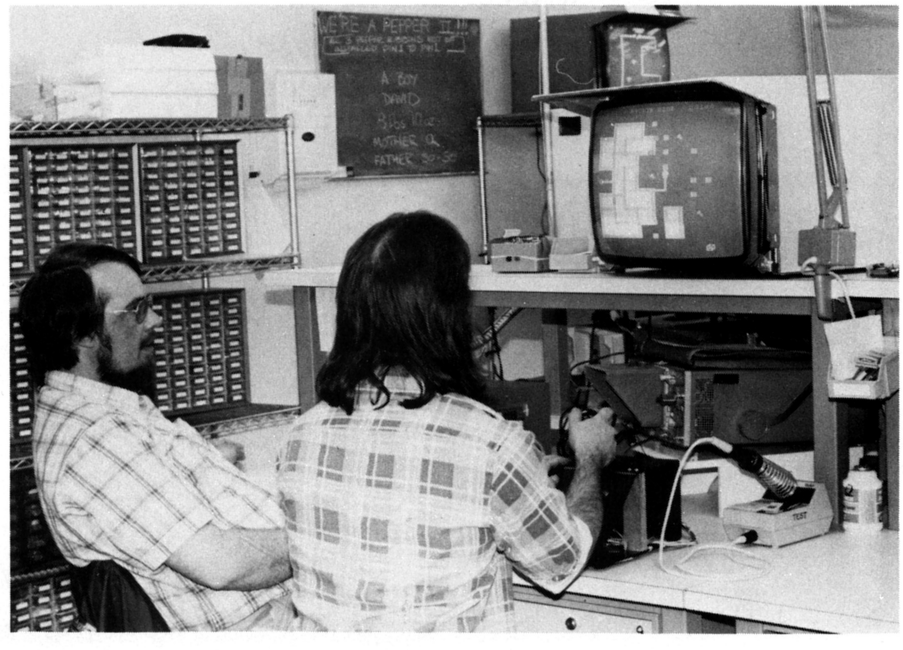
Frequently making reference to *Pac-Man*, which he said was "a classic example of learning video game theory and applying it to a game," and Exidy's newest game, *Pepper II*, which he said will be his first real test as a market analyst, Grainger began elucidating what he saw as the hidden secret appeals of video games.

(*Pepper II*, Grainger claimed, is the first Exidy game that actually incorporates his video game theory.)

"Players find it inherently pleasurable to plot mental intercept trajectories," he stated first off. He explained that players enjoy projecting where an enemy character or target is going to be. In shooting games, that translates to the player having to shoot the enemy where it ain't.

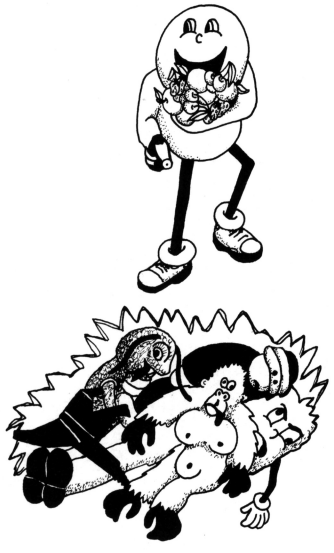
This principle is evident, although more subtly, Grainger insisted, in maze games

Technicians check out the Pepper II *program for flaws. The game, Grainger insists, is the application of current video game theory.*



like *Pac-Man* and *Pepper II*, where the player has to project if he can reach a certain point, like an energy dot, before the video monster does.

A second video game principle Grainger touched on was the continual positive reward the games must offer. "Games used to have the players work a long time before they got their rewards," Grainger continued, "but today games are offering more and continual rewards."



Player rewards

By "rewards," Grainger said the sound the machine makes, as well as the sights, and short respites from play action, can all be construed as player rewards. The sound of a tune on the screen when the player reaches a certain level, the changing of colors on the screen—these are examples of reward to the player, a sort of reinforcement showing that he has gotten the best of the machine at a certain level.

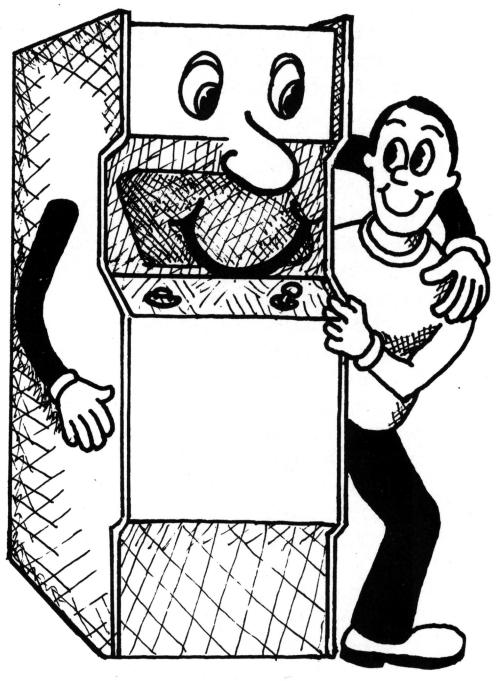
The cartoon scenario between the second and third screens of *Pac-Man*, Grainger pointed out, is an example of how a reward can mean a break in the action.

"Once a player reaches a certain level of accomplishment, he needs a little breather," he stated.

He continued, "You've got to remember these machines are large bio-feedback mechanisms." They cajole, flatter, encourage, and eventually frustrate the player. And a good game designer makes sure to keep the player playing with as much positive feedback as possible, indicating that he's getting the better of the machine and is improving in his mastery of the game.

A third principle Grainger offered about video games was the use of color, speed, and changing forms. In a game, Grainger contends, the player is in a position where he has to make decisions, and he has to make these decisions based upon priority assumptions. And the game can assist or confound the player, according to the designer's wishes, by the use of color, form, and speed, as well as sound.

For instance, Grainger said, if the player is confronted by two threatening menaces —one red and one blue—he has to decide which one is more menacing so he can act.



"Now red connotes hostility, urgency, danger," he continued; "so the player should know to respond to the red menace.

Flashing menace

"But what happens if the blue menace starts flashing?" he continued. "That should signal a more threatening menace to the player."

Conversely, Grainger pointed out, a

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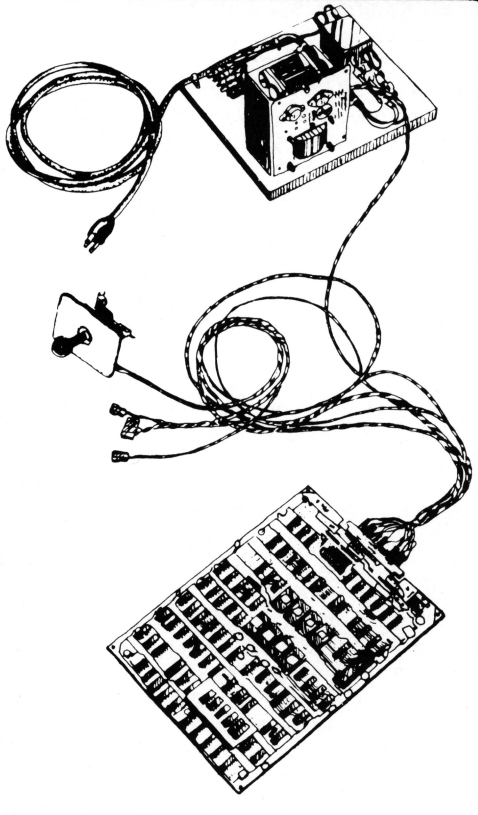

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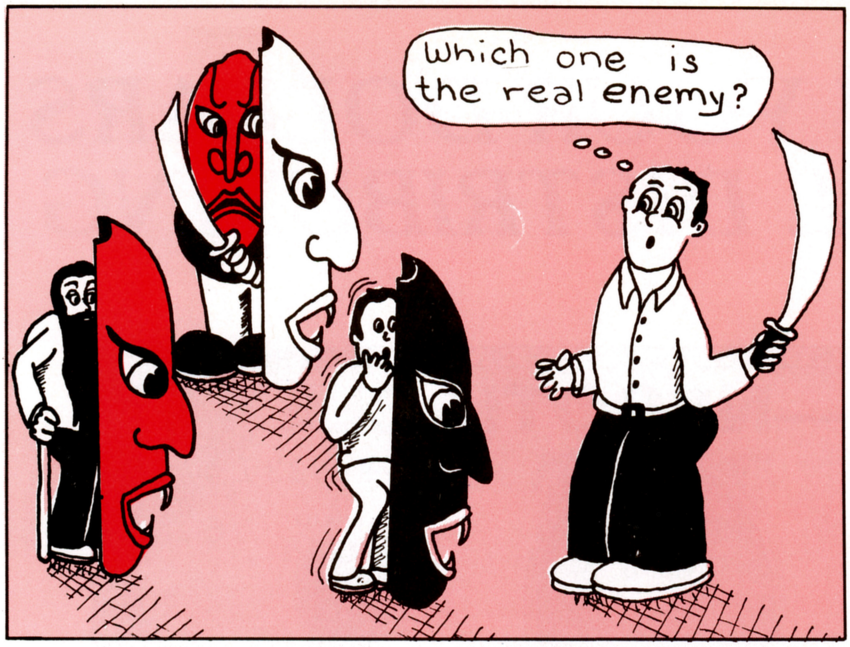

game designer could use the colors, sounds, and forms to confound the player instead of assisting him at higher play levels. If that were the case, then the player would have to learn to overcome mental obstacles to reach correctly to the blue menace since that menace would be more threatening than the red menace.

Such deception in video games, by the way, may go a long way toward disciplining players' minds to not jump to conclusions based solely upon the brain's irrational color priorities.

The marketing whiz elaborated at length on several other principles he had uncovered, then added, "I would hope that this will help get an air of scientific methodology to tell us what people want in games."

He said he is doing a "methodolical analysis of players, but what I'd like to do is some physiological testing as well," no doubt hooking up body monitors to test various video game influences on players. "I would hope we could eventually get to that kind of methodology of testing games," he said.

Grainger, forever the logician, argued that one thing that does not belong in a game is "randomness. There is a need for structure," he said. "The game must represent a limited intelligence until the player reaches a certain level, then the game reaches a phase of enlightenment for a period of time.

"The next level is the interactive game where the machine actually senses what the player's reaction is."

Proud supporter

Kauffman, a staunch supporter of video game copyrights because of the investment his company has made to delve into the secrets of video game success, is proud of his company's direction within the industry and the industry's place in American society.

"Video games introduce players to logic," he said. "What outsiders aren't aware of is that video games offer the player the chance to try to decode the logic programmed into these machines by graduate level engineers. The player has to learn how to be equal to the programmer.

"We're teaching kids the analytical process of reverse logic. Not only are we building their memory retention," he continued, "but we're also providing them with a medium to follow a logical process to a satisfactory end result."

Pointing to Exidy's sophistication and commitment to creating new games, Kauffman said his company would rather create the games than license them. After all, "It's a helluva lot more fun." •

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PUZZLES

The pin heard 'round the world

By Bill Brohaugh

INTRODUCTION

This will be the first installment of a regular department featuring quizzes, puzzles, and word games related to coin-op equipment. Before I ask you to play along with me, though, I think you should know something about me and my background.

I am, most of all, an avid games player. I first discovered video way back in the days of *Computer Space*, and I'm so addicted to pinball that I have two machines in my dining room. I also throw a mean puck on shuffle-alley bowling machines.

I do some freelance writing on the subject of coin-op, and I have talked with some of you over the phone while researching my stories, and with others of you in person. I even managed to write a story about pinball for *Writer's Digest*, the Cincinnati-based magazine that employs me as assistant editor.

This department is going to be a lot of fun, I think—both for me and for you. I welcome your input and any ideas you have for games. I'm happy to be able to bring this to you, and I'm especially happy that I can do so as a part of the *Play Meter* team.

•

Recently, a speech was made by someone who was to become a major pinball spokesperson. That speech was literally heard 'round the world. To learn exactly what was said in that speech, complete the names of the following coin-op games, then use the numbers below your answers to insert the appropriate letters into the spaces below to find out the contents of the speech and the people who translated the speech into English for us.

Clues

1. Gottlieb's _ _ _ _ Line pingame
   32 43 36 2
2. Stern's Sting _ _ _ pingame
   24 7 33
3. Midway's Wizard of _ _ _ video
   42 4 40
4. Bally's Nip-_ _ pingame
   46 21
5. Williams's Black_ _ _ pingame
   34 17 41
6. Game-A-Tron's Space _ _ _ _ _ _ video
   18 35 3 22 37 27
7. Gottlieb's _ _ _ _ God of War pingame
   1 26 8 49
8. Midway's _ _ _ _ _ Race video
   16 48 10 25 11
9. Stern's Big _ _ _ _ pingame
   30 20 13 29
10. An object important on the backglass of Gottlieb's Pink Panther: _ _ _
    6 19 28
11. Bally's _ _ _ Doggin' pingame
    38 31 12
12. Midway's _ _ _ _ Shark video
    9 44 39 14
13. Gottlieb's _ _ _ _ _ Flush pingame
    5 23 15 47 45

The Speech

_ _ _ _ _ _ _ _. _ _ _ _ _ _.
1 2 3 4 5 6 7 8 9 10 11 12 13 14

_ _ _ _ _ _ _ _ _ _ _ _ _ _.
15 16 17 18 19 20 21 22 23 24 25 26 27

_ _ _ _ _ _ _ _ _. _ _ _ _ _ _ _.
28 29 30 31 32 33 34 35 36 37 38 39 40 41

_ _ _ _ _ _ _ _.
42 43 44 45 46 47 48 49

Answers will appear in the August 1, 1982 edition of *Play Meter*.

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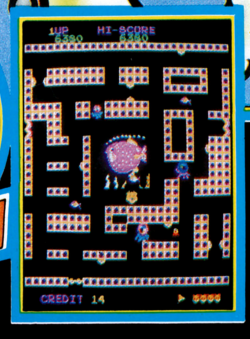

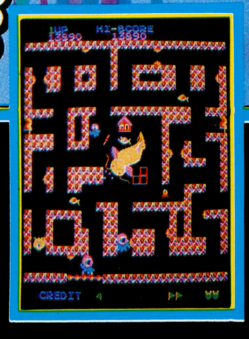

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Romer figures that seventy percent of his customers use the headsets.
—Photos by Lee A. Osterwise

Silence can be golden

By Laura Braddock

In some of Paul T. Romer's Golden Arrow Family Amusement Centers in Phoenix, Arizona, it's so quiet that you can probably hear a quarter drop.

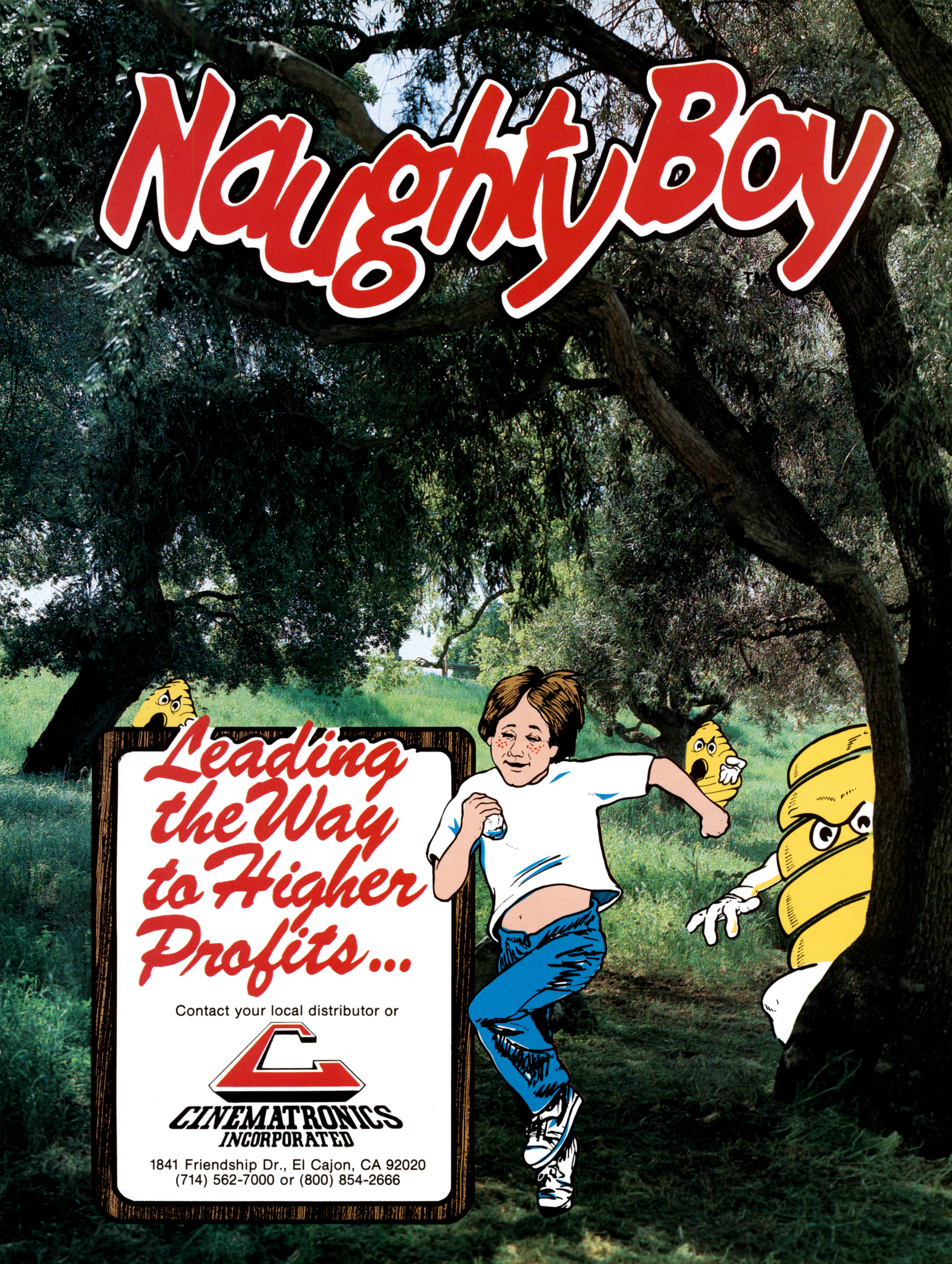
No rockets blasting.
No frogs splashing.
No cars smashing.

Noise is kept to a minimum because Romer has adapted headsets to his video games in three of his six family amusement centers. He said his centers are the first in the nation where customers can choose to use earphones to hear video sound effects.

Less sound is coming out of his family amusement centers, but more money is coming in. Romer's business has increased ten percent or more since he has added the headsets. "It's new," he said. "The kids are going for it."

Parents used to drop off their children at Romer's centers, but they don't drive away anymore. "There are more families now because of the noise elimination," he explained. And the businessman said he

Customers' complaints led Romer (right) to adapting headsets to video games.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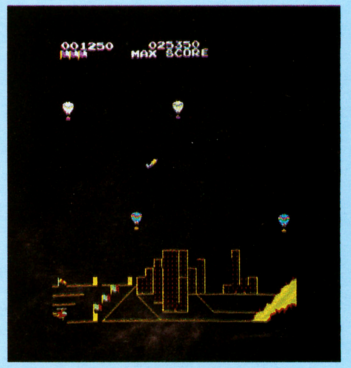
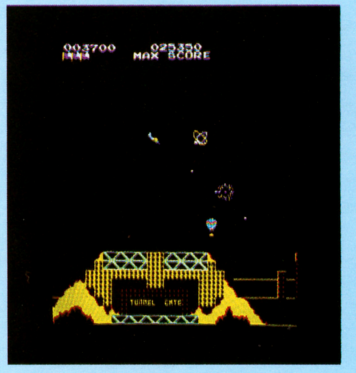
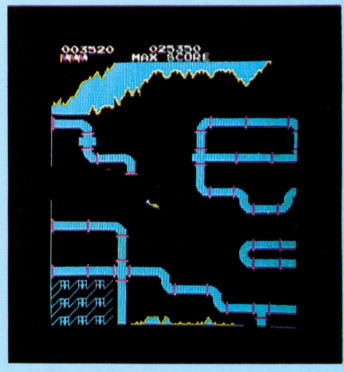


As the Player begins his flight into Adventure-Land, his airplane is quickly surrounded by hot air balloons. WATCH OUT! These seemingly innocent colorful objects mean destruction.



Immediately the Players flying skills are tested. The hot air balloons challenge and engage the Player in a fierce dogfight. The Player must loop his plane to avoid and destroy the swirling balloons.



As the Player continues his journey into Adventure-Land he encounters the Maze Tunnel. Now the Player must guide and loop his airplane through the labyrinth with precision movements.

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has not received his full profit potential yet because many people still do not know about the headsets.

Romer figures that about thirty percent of his clientele, mainly customers 25 years and older, don't use the headsets—they like the quiet. The games can be heard without the headsets, but the volume is extremely low, he said.

Romer, who has been in the amusement business nine years, is surprised by this fact. "I didn't think it (percentage) would be that high. I ask them, 'Do you want the headsets?' They say, 'Hell, no. This is fine.'"

The other seventy percent of his customers, mainly teenagers, use the headsets. He said his younger customers tell him they can concentrate better wearing headsets—other games don't distract them and they don't have to worry about someone poking them in the ribs saying, "Hey, you got a quarter?"

And since many teenagers have their own radio or tape player, equipped with a headset, they simply put a quarter in a game and connect their earphones to the jack on the equipment.

The headsets are not attached permanently to the machines. Someone who wants to use one of Romer's headsets checks out the equipment by signing his name.

No thefts have occurred. Romer said that's because he has well-managed centers and his clients respect the rules: "It seems like they respect the idea that they can use the headsets for nothing, so why rip it off?" he explained.

Romer's idea is starting to spread. He plans to equip his other three family amusement centers with headsets, and a game manufacturer may also be interested in his concept.

Romer said a Bally/Midway marketing staff member told him that the manufacturer has a machine in the factory now it may adapt to feature a jack for headsets.

No comment was available from Bally/Midway at press time.

How did Romer conceive the idea for adapting headsets to his equipment? "I have had several complaints over the last couple of years," he said. "People come in and they ask me, 'How do you stand all the noise?' Well, it's to the point where the operator gets immune to it more than the customers. So I came up with adapting headsets to video games because of the people complaining."

Romer doesn't grumble much himself about the extra work involved with the jacks. He said it's not an expensive operation—he ordered the headsets directly from New York and, excluding labor, it costs about $20 per game to install the jacks.

He does all the work himself. It takes Romer about fifteen to twenty minutes to drill the hole and wire the jacks. "But I have it down pat after doing ten or fifteen of them," he cautioned.

Silence is becoming golden for Paul Romer. •

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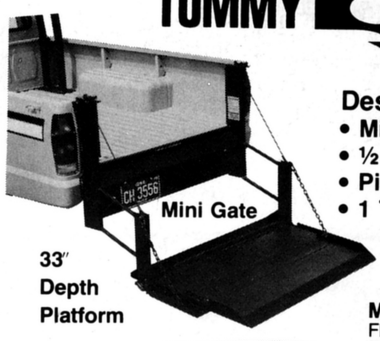

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OUR 'CADES

By Bill Kurtz

Banking vs. scattering

To bank or not to bank your video games...?

That's one of the questions facing operators ever since video games took off in popularity a couple of years ago. Is it more profitable to cluster your six *Pac-Man* machines together or to spread them out around your arcade?

Banking your games in a large game room can have a "positive psychological effect" on players, said Murray Panitz of New York-based Just Fun, who operates several arcades in the northeastern states.

A bank of *Donkey Kongs*, for example, might have the players elbow to elbow, with more spectators watching and waiting their turns to play and impress the other *Donkey Kong* fanatics than if the games were scattered.

"Some people like to play next to other people and have others watch, and crowds (around a bank) direct traffic to that area of the room," Panitz said. "It's a case of 'Monkey see, monkey do.'"

By the same token (no pun intended), banking your games creates what Cliff Rydell of Bensar Distributing Co. of New Richmond, Ohio, called the "supermarket effect."

"If the games are side by side, like things in a supermarket, people might look in just one 'aisle' and then leave. But if the games are spread out, players standing in lines might play a less popular machine, if it's nearby, while they're waiting," Rydell said.

Scott Housefield of Modern Vending Sales Corp. Inc. of Indianapolis agreed with Rydell.

Roaming players

"We do not recommend banking games under any circumstances," he said. "If the games aren't together, players will roam around the arcade to see what else you have while they're looking for their favorite machines."

> To get the best of both worlds, Panitz said he sometimes banks "two and two"...

Housefield added that banking games makes it "too easy" for players to instantly identify every game in your arcade and "too obvious" what machines you have.

"When you bank your games, twenty machines look like just twenty machines. But if these same games are separated, it seems like there's a greater number of different games."

Separating your multiples of the same game also distributes the players more evenly around the arcade, preventing crowds from gathering in just one or two places.

To get the best of both worlds (banking and scattering), Panitz said he sometimes banks "two and two"—a pair of *Centipedes,* for instance, together in one area of the arcade and two more *Centipedes* in another spot.

Visual impact

He added that he only banks games in the larger arcades where the machines can create a visual impact. "A lot depends on the room. Usually the larger the room is, the better (for banking)."

Whether or not you bank your games is best determined by your own operation. If, for example, you constantly get in new games and rotate out old ones, banking might mean rearranging your arcade equipment whenever a new game picks up steam and you want to double or triple up on it.

Just pick whatever arrangement works best for you and your customers. And you can take that to the bank! •

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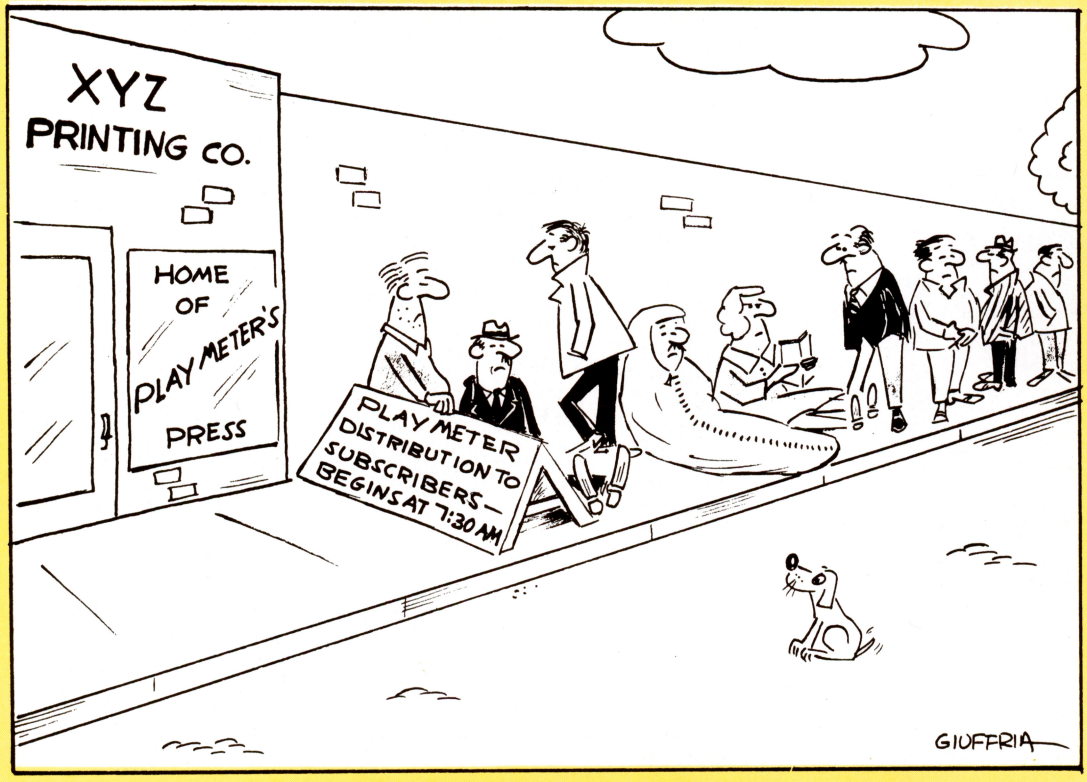

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PR PROBLEMS/ PR SOLUTIONS

By Mike Bucki

Planning a game-a-thon

He felt frustrated and helpless as only a 12-year old boy/man can when confronted with the fact that his best friend had a terminal case of leukemia.

"And I went around trying to get people to donate blood, and I went around trying to get people to raise funds, and I went around trying to get the school principal to allow buses to be used to take people to the hospital to give blood, and all I got was dead ends because people kept saying, 'No, it's terminal, it's just a waste of time, it's a matter of money,' and all this other stuff. And I kept thinking, my gosh, a person's life is a matter of money?"

His friend managed to "hang on" for more than ten years, but Mike Myhal never forgot the desperate frustration he experienced as a 12-year old. Today the Anniston, Alabama, chapter of the American Leukemia Society has an unexpected $11,000 in its coffers because of it. The money was raised during an eight-week promotion leading up to a 72-hour game-a-thon at Myhal's Magic Mountain arcade.

But the Leukemia Society wasn't the only beneficiary. About 250 youngsters and young adults collected $5,000 worth of prizes. Radio station Q-104 discovered several new sponsors, and Myhal and several dozen area merchants received immeasurable amounts of community goodwill. Magic Mountain, touted in eight radio spots per day for four weeks, featured in several newspaper articles, and spotlighted in two television reports, probably received about $5,000 to $6,000 in advertising, according to Myhal, who added, "and good advertising, not even advertising but good publicity."

But he warned that that shouldn't be the motive.

"If you make the motivation, 'Well, OK, let me see...I'll raise $10,000 for Leukemia, but I've got to get $6,000 in publicity out of it,' you'll never pull it off," he said. "People will see right through you."

On the other hand, you've got to be prepared to blow your own bugle. "I didn't find out till five weeks into it (the promotion) that I should have my own press releases, that I should call the TV stations and get them to come out, that I should call *Play Meter* magazine," he said. But again, make sure the motivation is charity and not your arcade.

Keeping in mind the political pressures coming to bear on the amusements industry in many parts of the country, and the fact that many operators have been in business less than two years, Myhal has several tips for those considering a game-a-thon.

> ...make sure the motivation is charity and not your arcade.

Approaching the radio station(s)

Having one station, Q-104, as a primary sponsor worked well in Anniston. It is *THE* station youngsters and young adults listen to. But in more competitive markets, metropolitan areas for example, Myhal suggested approaching all radio stations as "co-sponsors." That way you won't run into the problem of: "Why should Z-93 help publicize Q-104's fund-raiser?"

Approaching merchants for prizes

Myhal suggested using this tactic: "Look, you must have an item in your inventory that is either going out of date or is too high priced so that you can't discount it and make money on it, and you can't move it. So, it's a better tax write-off at full value."

Keeping the kids motivated

Make them sign for the pledge sheets; it makes them responsible, and they're less likely to lose them. Call them once a week, every week, during the four, six, or eight week run of the promotion. Offer extra tokens for money raised as a incentive, in addition to the prizes and free playtime they're earning for the game-a-thon.

Clarify the rules

Clarify the rules for the kids, the donors, and the parents. Make sure each child knows that he's part of a team, that he doesn't have to play during the marathon to win the prizes, and that he collects points for the pledges he collects. Give each child an introductory letter to give to the people he approaches.

Carefully explain to the parents that children will not be playing games into the wee hours of the morning—that adult team members will cover those hours. And when a child wins X hours for X pledges, check with the parent and find out how late and on what night or nights that child can play.

Check the prizes donated by the merchants

Check the prizes to insure that the value stated is the value of the item. "Make sure it's a $10 gift certificate and not a $10 off certificate," Myhal said. "That kind of thing can come back to haunt you." It's your promotion, he said, keep control.

Making the game-a-thon a fun event

All machines are set on free play and the volunteers collect the hours they've earned through pledge collections. But, to stir up more publicity and collect more money for leukemia, Myhal tried several tactics:

Pac-Man and Coffee: For a $2 donation, adults, on their way to work, can stop by for a free cup of coffee and as much *Pac-Man* as they can squeeze in.

Instant Specials: In the wee hours of the morning, Myhal, sounding groggy, would call Q-104, and announce to students at the nearby college campus that for a $10 donation they could pack as many students as possible in a car—"Wear your pajamas; it doesn't matter. Come on down here and all of you will play free for two hours."

The Pinball Smash: For a $2 donation, participants received fifteen seconds of sledge hammer time with an old pinball machine (a tax write-off for Myhal at full DRA value). The first participant was the mayor of Anniston. The Q-104 DJs did a live remote broadcast, and a local TV station sent a news crew to record the event.

Expect burnout afterward

Don't expect business to zoom up after the event although dozens of new customers, or potential customers, became involved for charity. Having played the games for several hours during the event, many of these customers are gamed out for a week or two afterward.

Myhal countered this possibility with a double-pronged strategy. He shifted some of his best new games—some, not all—to his route just before the 72-hour marathon and brought them back a few days later. And he delayed a planned renovation, including the addition of a miniature golf course, until just after the marathon.

Can you match Mike Myhal's generosity of sharing his experience with you? Write to me in care of *Play Meter*, or call me at 404-451-9548. If every operator in the country was as generous, mature, and aware as 27-year old Mike Myhal, there wouldn't be any publicity problems for this column to discuss. •

Mike Myhal's Rules Sheet

Collecting Pledges

1. You can collect pledges from individuals, businesses or other groups
2. Introduce yourself, then give everyone you contact an Introduction Letter.
3. Ask for a pledge by saying, "Will you support our 72-hour game-a-thon against leukemia with just 5¢ an hour?"
4. You CAN collect less than 5¢ an hour if they say no, you CAN collect more if they say yes.
5. You can collect pledges right away or after the game-a-thon, whichever the sponsor prefers.
6. All money and pledge sheets MUST BE turned in to Magic Mountain.
7. Always, always, always be polite.

Winning Prizes

Remember: More $ collected = more points = better choice of prizes.

Every $5 in collected pledges = 1 point.

A current list of prizes and how many points you'll need to win them is posted at Magic Mountain.

REMEMBER: MORE $ COLLECTED = MORE POINTS = BETTER CHOICE OF PRIZES.

Playing in the Game-A-Thon

As a volunteer, you are collecting pledge money as a member of a great big team, so if you don't want to play or can't play during the 72-hour event, it doesn't affect your pledges or your winning of prizes. Someone else on the team will play for you. However, if you collect a MINIMUM of $25, you CAN PLAY during the 72-hour Game-a-thon event. Call Magic Mountain to reserve an available time slot.

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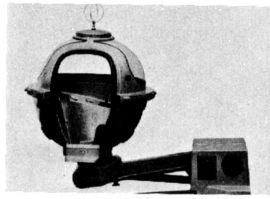

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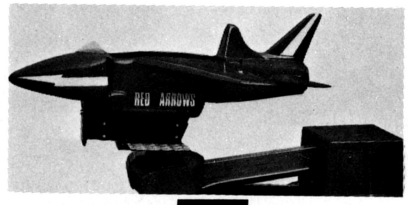

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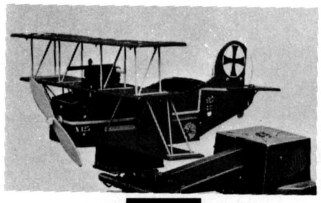

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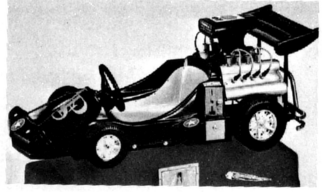

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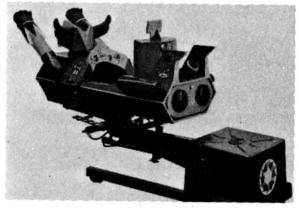

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FRANK'S CRANKS

By Frank Seninsky

'Robotron:' 'a well-designed game'

Williams's latest video game, *Robotron*, has many similarities to its previous game *Stargate*. The cabinets are almost identical. The sides of the *Robotron* cabinet are a light gray with red and blue graphics. After a month on location, the side graphics show very little sign of wear. This should be good news to game owners because games made by other manufacturers that have stick-on decals don't necessarily have them soon after the games are used.

All of the Williams's video games, the first being *Defender*, utilize the same monitor and any one monitor can be interchanged with any other. The interface board on *Robotron* is also the same as on *Stargate*.

To make troubleshooting in the field easier, it is possible to convert a *Stargate* CPU board into a *Robotron* CPU board with just two cuts and two jumps. Once these modifications are made to a *Stargate* CPU, the board can be placed back into a *Stargate* game, and the modifications will not affect the operation of the game.

This is possible because some extra circuits are required in *Robotron*. You can therefore put a *Robotron* CPU board into a *Stargate* game, and it will work.

The figure shows the top left section of a *Stargate* CPU board. First locate chip 5A which is a 7404 Hex inverter. Cut off the ground foil leading to pin 3. Next locate chip 6F which is a 7408 AND gate, and cut off the ground foil at pin 3. Connect pin 3 of chip 5A to pin 3 of chip 6F with a six-inch length of wire (use 22-gauge wire or a slightly thinner wire).

Simple to connect

The second modification is to run a ten-inch length wire of the same gauge from Pin 4 of chip 5A to Pin 32 on edge connector 1J4, which is a 40 pin ribbon cable header located on the top edge of the CPU board. To make life easier, take note of the hole in the CPU board one inch below connector 1JR. If the wire is fed through this hole, it will be a simple matter to connect the wire up to Pin 32 from there. That's all there is to it.

Last month I wrote that numerous problems were occurring in the bookkeeping sections on *Defender* and *Stargate*, and Williams hasn't been able to explain the reason. With some further research, I found that there may be three reasons for these games to lose their bookkeeping memory, and it's not Williams's fault.

The first has to do with the memory protection circuit. Williams's games have a switch on the frame of the coin door called the memory protect switch. When this switch is closed, information cannot be written into the CMOS RAM circuit. This protects the bookkeeping memory from receiving "garbage." If this switch is bad, the bookkeeping circuit will not be protected.

On *Defender* and some *Stargate* games, a 4148 glass diode (labeled D14 on the CPU board just to the left of the batteries) was used in series with the three batteries that are part of the memory circuit. Many of these glass diodes have cracked from parts falling on them. On most *Stargate* and all *Robotron* games, Williams has changed to a 1N4001 diode (labeled D10 in *Robotron*) that is more reliable and more durable than the 4148 diode. This makes the *Robotron* memory circuit reliable. It is suggested that any broken glass diodes on *Defender* and *Stargate* be replaced with 4001 diodes.

Weak batteries

Loss of bookkeeping can also be the result of weak batteries and/or a "flaky" C MOS RAM. The specifications on the C MOS RAM say that it needs a minimum of 3.0 volts to operate correctly. In reality, 3.5 volts is required. The three batteries, when new, put out 4.5 volts (They are hooked up in series.). The D10 diode (IN4001) drops this voltage approximately 0.4 volts. The three alkaline AA batteries will last about one year.

Since *Defender* has been out much longer, it is definitely time to change all of your *Defender* batteries. If you find a leaky battery, chances are that the diode (D14 or D10) has shorted out. With this information, I must apologize to Williams because once these memory sections are operating correctly, the bookkeeping will be accurate. There is nothing wrong with the design of the bookkeeping circuit.

Having the cashbox under the coin door with its own compartment has been a blessing. There is no need for the service people to open the cashbox door. There is no need for the collector to open the coin door because Williams has installed a push-button switch on the top of the cashbox compartment. By depressing this switch once, the bookkeeping information will appear on the screen. Depressing the switch again will return the game to game over mode.

The two eight-position joysticks are the newly improved models made by Wico Corp. The stick shaft is thicker and the bushings and metal washers are stronger. So far I have not heard of one of these joysticks breaking. The overlay on the control panel is much improved over the plastic overlay material used on *Stargate*. The buttons for the first and second player buttons are "see through" and light bulbs are located under the buttons. You can't really notice that these buttons are lit, and I don't think it makes much difference but it worked out positively anyway.

When you are working on the control panel in a dark area, these bulbs definitely help! Maybe Williams planned it that way after all. A hook and chain have been attached to the control panel so it won't hit the top of the coin door when pulled open.

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Monitor covers

The monitor cover on *Robotron* is made of tempered glass. This is better, I feel, than the plastic monitor covers used on *Defender* and *Stargate*. I have seen numerous plastic covers broken while very few tempered glass covers have been broken. Atari uses the tempered glass monitor covers on its later games (*Centipede* and *Tempest*).

The monitor is easy to work on and is also easy to adjust. A mirror has been placed on the frame above the back of the monitor chasis. By removing two bolts, the monitor can be slid back a few inches, and the screen can be viewed by looking in the mirror. This makes all monitor adjustments easy.

The old way was to stick your arm into the monitor and stretch your body so you could see the front of the game. This usually resulted in you either pulling a muscle in your neck, back, or arm, or getting electrocuted when your fingers or arm bumped into the high voltage section. Some smart mechanics carry a mirror with them to adjust monitors.

Negative points

Some of the negative aspects of *Robotron* are:

1. The easily breakable and easily removable marquee. Williams has used metal guide rails to hold the marquee in place that are much better than the easily bent plastic rails used on its past games. I am constantly replacing the marquee and have now gone to using either wood or a solid plastic as a cheaper replacement.

2. The speaker grill covering is very thin and cheaply made. It's a simple matter to rip this grill apart from the outside or put your fingers through it. And it's also expensive to replace. Once the grill is torn, someone will surely poke holes in the speakers. Most other manufacturers are using durable metal speaker grills. Why not Williams?

3. The circuit boards are mounted to the back door. In many instances, the back door is torn into pieces when a game is broken into from the back. It's bad enough to have to cut a new back door, but how do you fix circuit boards that are cracked in pieces? There is plenty of empty space available on the side walls of the cabinet.

4. The bottom back door swings open on hinges which makes it difficult to work on the game without pulling the game far away from the wall. The open door also blocks out light.

Positive features include:

1. A handle on the top back of the cabinet to make it easier to tip the game back onto a hand truck.

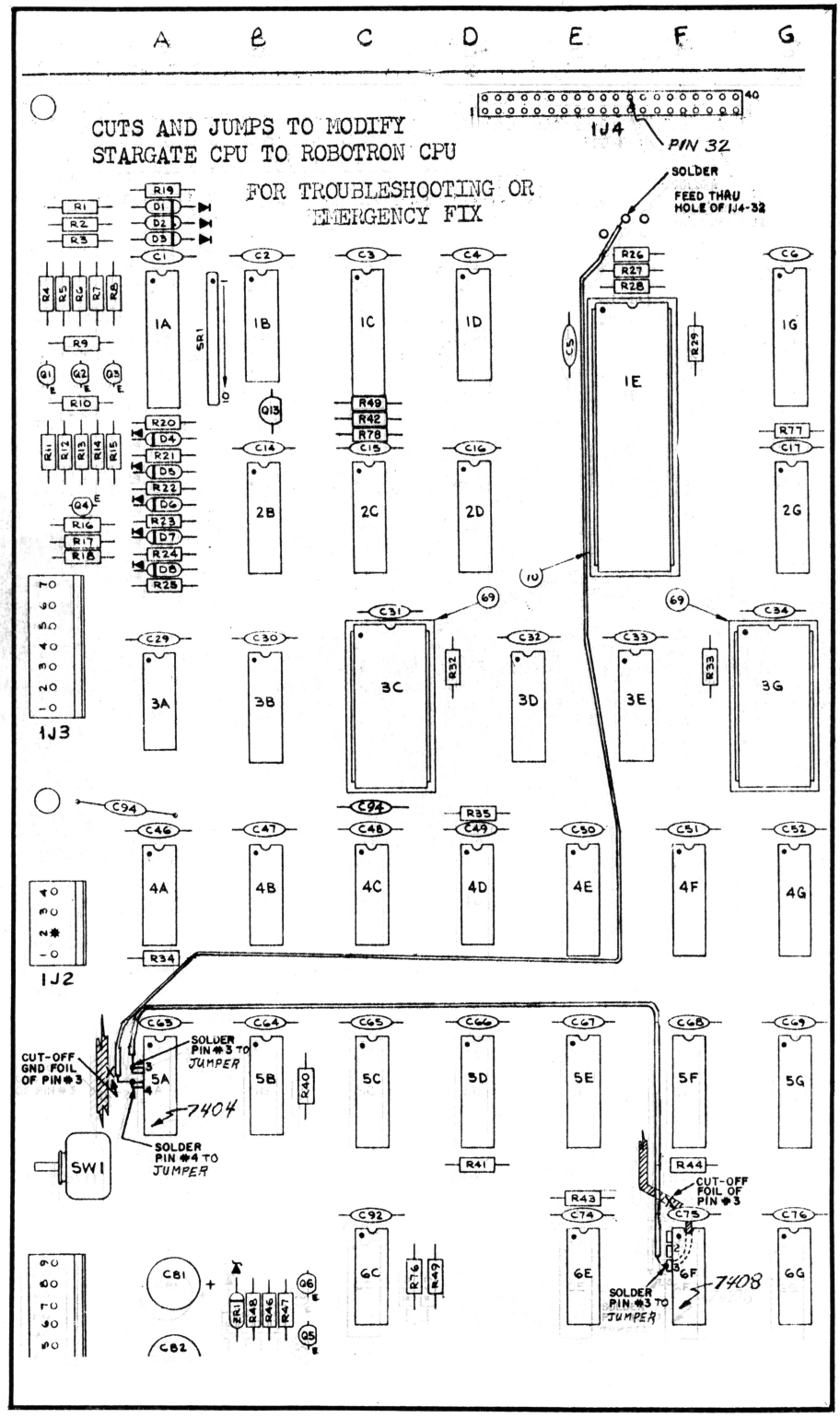
2. A volume control that is located on the right side of the cabinet, easily reached from the coin door.

3. An on/off switch located on the top of the cabinet toward the back that is easily accessible without moving the cabinet away from the wall.

It's helpful to know that ROM 12 must be good in order to utilize the self-test mode. If ROM 12 is bad, the game will probably lockup. Sometimes there may be a problem when one of the 24 RAMS is bad. You may get lucky and be able to move the bad RAM to a position where the game will operate. However, it's a good idea to carry one spare RAM in your parts case.

Robotron, in general, is a well-designed game that will hold up. I recommend that the game be operated on liberal settings because most players will find the game difficult to master. The average time of play should be more than one minute, or players will feel they are being ripped off. All that really has to be improved is the plastic marquee and speaker grill cover. I rate *Robotron* a 9.0 out of 10.

Thanks to Jim Kline, service manager at Williams, for the time he has taken to go over aspects of the games. •



COIN OF VANTAGE

By Paul Thiele

Inexpensive and expensive repairs on Stern pins

My favorite pinball manufacturer since the introduction of solid state to the game has been Stern Electronics, as proven by the plurality of Stern pins on my route.

The smartest thing the company did from Day One was making its circuit boards interchangeable with those of the industry's leading manufacturer, Bally. From there, Stern placed on the market a consistent assortment of innovative and entertaining pinballs.

Stern also should be praised for not constantly changing from the fundamentally sound mechanical workmanship the firm inherited from Chicago Coin five years ago.

By staying with the same inventory of mechanical play-field parts for so many years, the company has alleviated the serviceman's problem of having to buy more and more different styles of parts for the same mechanical assemblies, such as slingshot kickers and flippers.

The one hitch is that some of Stern's parts break more frequently than other manufacturers' parts. For instance, Stern slingshot kicker cranks should always be present in your parts box. They break a lot. The good thing is that they are simple to replace and inexpensive.

Stern's most disturbingly faulty part is its flipper pawl which also breaks more frequently than the competition's flipper pawl. This part was changed in design a few years ago, but it remains a weak link, so to speak.

The weak portion of the older pawl was the stud that fit into the plunger link. The weakness on the new pawl is the stud that actuates the end-of-stroke switch (similar

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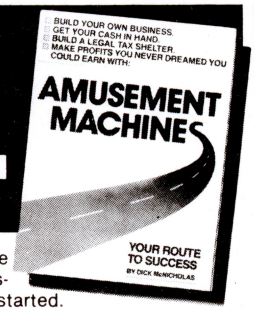

You're not alone if you think you have loads of questions about how to successfully operate a route. I had plenty when I started.

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to Bally's flipper pawl of the 1960s and early '70s).

Simple, but costly

The pawl is simple to replace, but the problem here is its price. Whether you buy it from the distributor or a general parts supplier, the new part will cost you more than $6. And that's too much. Sure, the enterprising repairman can drill a hole in the broken pawl and fashion a new stud, but who can get enthusiastic about drilling on location—or anywhere?

A part that costs so much could at least be manufactured to last over the long haul. This could be achieved by using better metal or by making the stud replaceable—something like Gottlieb's past replaceable coil stops that fastened to their brackets with elastic stop nuts.

In these economically trying times, matters such as high-priced parts assume greater importance. Just as important to operators are equipment prices and deciding which games are truly worth buying, especially in light of the soft pinball market.

Stern has been very active in producing pins so far this year. Two contrasting games that were introduced back-to-back were *Dragon Fist* and *Iron Maiden.*

Dragon Fist is a standard-body pin with a martial arts theme, and I think it's a knockout. My favorite feature is the spinning target that awards a special for twenty, forty, sixty, or eighty pins, as indicated on a back-glass display.

A player hitting the ball hard enough to achieve sixty or eighty spins is unlikely, but the numbers collect until the spinner pauses so conceivably you can hit a ball through the target several times to achieve the higher totals. At the same time, the ball can descend and cause the spinner to stop—a strategy that can be employed by the extremely skillful (or lucky) player.

A spinning obsession

For some players, the spinner could become an obsession within this conventionally designed pin that does well without multiball, multilevel, or speech.

Also, the colors used on the play field are especially appealing. This is the type of game that might be overlooked by many operators, but it could turn into a satisfying sleeper.

"On the other hand, she had warts." This cornball expression could describe metaphorically Stern's wide-body, multilevel, multiball effort, *Iron Maiden*, which might cause mixed feelings among players.

This is one of Stern's most unusually designed games ever, and it leans toward a unique complexity that might go unappreciated by the less-than-avid flipperphile.

I read in *Play Meter* a description which said *Iron Maiden*'s play field has "everything, including the kitchen sink." Well, if not the entire sink, at least the drain. A more accurate sales pitch might have been, "It's got everything except a thumper bumper."

Worthwhile features introduced on *Iron Maiden* are sequential drop targets that may be completed in ascending or descending order and a set of three stand-up targets in a nook of the play field where the ball can rattle around and hit more than one target per shot.

Extra ball payoff

The game offers a timer feature that accumulates up to 25 seconds during play and pays off with an extra ball after the final ball has drained. When that time elapses, the solenoids stop working and the ball dies for good.

The graphics and lighting are this game's most inspired features, while its most glaring deficiency is that it has no speech. This is unfortunate, since the back-glass art looks like a "heavy metal" treatment of Bally's notable talker, *Xenon*, and *Iron Maiden* could use the help.

Iron Maiden's playability drawback is that the ball action bogs too often over its vast play field, except during multiball play. The game demands a skillful shooting touch which will probably confuse or alienate players who enjoy "jamming" on faster-paced games. •

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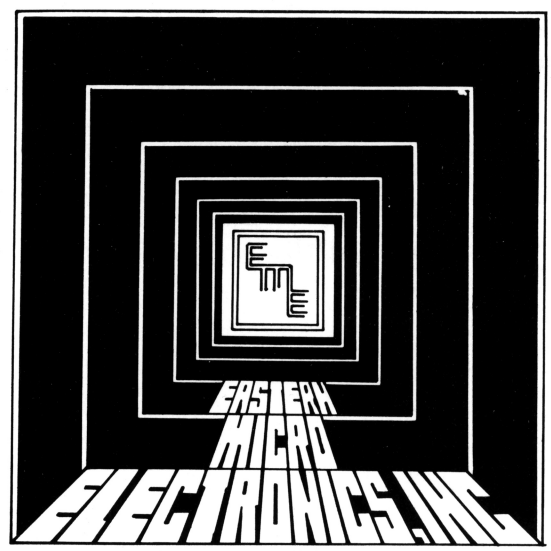

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PROGRAMMED TEST NO. 10

Pulse Forming Circuits

[NOTE: Lesson 10 appeared in *Play Meter*, July 1 issue]

Editor's Note: The material below is a serialization of the Kurz Kasch correspondence course for electronics, designed specifically for the coin-operated amusement industry. This course is copyrighted and owned by Kurz Kasch of Dayton, Ohio and its reprinting is being sponsored jointly by Kurz Kasch and Play Meter magazine. This material is authorized for publication exclusively in Play Meter magazine.

INSTRUCTIONS : *The purpose of this test is to guide you step-by-step thru actual circuit design problems. Also, many of these tests will provide you with additional design technique. Most important, these tests will provide you with a gauge to establish your degree of understanding of the material covered in the text. The test is programmed. Start at block one and then follow the numbered instruction associated with your answer.*

1

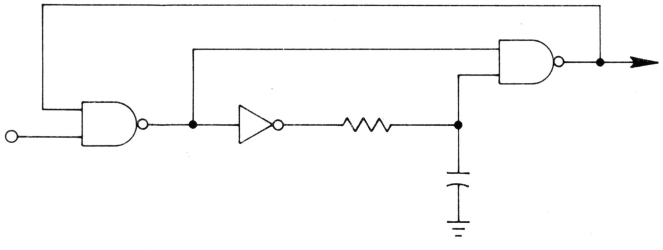
What device forms the basic contact bounce eliminator?

a. *NOT GATE* — *GO TO BLOCK 11*
b. *RS Flip-Flop* — *GO TO BLOCK 16*

2

YOU ARE CORRECT!

In the TTL mono-stable shown below, R = 200Ω. What must C be if the ON time is 0.8 msec?

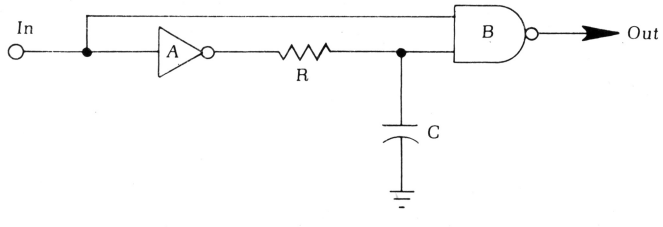


GO TO BLOCK 15

3

YOU ARE CORRECT!

What determines the ON time of this mono-stable?



a. *R* — *GO TO BLOCK 17*
b. *C* — *GO TO BLOCK 14*
c. *R x C* — *GO TO BLOCK 10*

4

The formula for the frequency of an astable multivibrator is:

$$F = \frac{1}{2 \cdot RC}$$

Plugging in the given values, we have:

$$33 = \frac{1}{(2)\,(1.5)\,(C)}$$

solving for C:

$$C = \frac{1}{(2)\,(1.5)\,(3.3)} = \frac{1}{99}$$

$$\cong .01\ \mu f$$

You have completed the test for lesson ten. However, before going on you should review any area in this lesson you do not fully understand.

5

YOU ARE INCORRECT!

Refer to the text and return to BLOCK 8.

6

YOU ARE INCORRECT!

Refer to the text and return to BLOCK 12.

7

YOU ARE CORRECT!

Design an astable to oscillate at 33 kilohertz. Use R_1 =

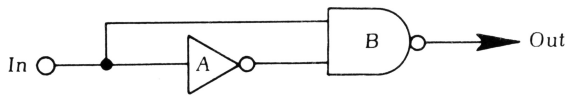
R_2 = 1500 ohms.

GO TO BLOCK 4

8

YOU ARE CORRECT!

In the mono-stable shown below, the propagation delay of gate A is T_A, and gate B is T_B. How long will the mono-stable stay in the unstable state?



a. T_A — GO TO BLOCK 3
b. T_B — GO TO BLOCK 5

9

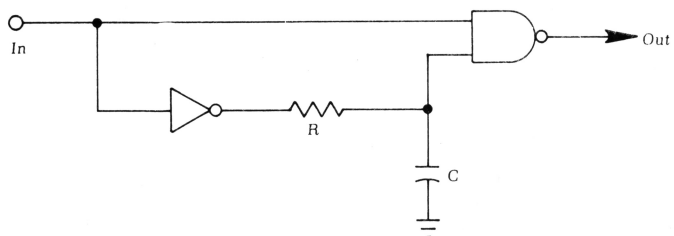
YOU ARE INCORRECT!

Refer to the text, then return to BLOCK 16.

10

YOU ARE CORRECT!

Can the output pulse from this mono-stable be longer than the input pulse?



a. YES — GO TO BLOCK 13
b. NO — GO TO BLOCK 2

11

YOU ARE INCORRECT!

Refer to the text and return to BLOCK 1.

12

The duty cycle is defined as the ratio of ON time to recovery time. Therefore,

$$\text{Duty cycle} = \frac{0.8 \text{ msec.}}{2 \text{ msec.}} = 40\%$$

Did you get the same result? If not, check your work before proceeding.

How many stable states does an astable multivibrator have?

a. One — GO TO BLOCK 6
b. None — GO TO BLOCK 7

13

YOU ARE INCORRECT!

Refer to the text and return to BLOCK 10.

14

YOU ARE INCORRECT!

Refer to the text and return to BLOCK 3.

15

The equation for a mono-stable's ON time is:

$$T = 0.8\ RC$$

Plugging in the five values:

$$0.8 = (0.8)(0.2)(C)$$

solving for C:

$$C = \frac{0.8}{(0.8)(0.2)} = 5\ \mu f$$

Did you get the same result? If not, check your work before proceeding.

If the recovery time of the above mono-stable is 2 msec., what is the duty cycle?

GO TO BLOCK 12

16

YOU ARE CORRECT!

What determines the time a mono-stable remains in the unstable state?

a. Its internal components — GO TO BLOCK 8
b. The input pulse duration — GO TO BLOCK 9

17

YOU ARE INCORRECT!

Refer to the text and return to BLOCK 3.

Coming up next: Power Supply Design Course

CRITIC'S CORNER

By Roger C. Sharpe

Save the humans!
Quick action demands expertise

So here it is the heart of the summer and things should be fairly well sorted out. I'm finding that the equipment keeps coming hot and heavy with an overabundance of product that makes it almost impossible to get to everything, so try to bear with me as I begin my third installment of the new Critic's Corner.

The more closely and critically I become involved with video, the more I wonder, given the current state of the art, whether xy or rastar is best and if players really care or notice the fine difference between the two. There's also lingering suspicions about those places that only have video games and have totally given up on pinball and whether they're really providing all that they should for their clintele. And I wonder if the space taken up by the fifteenth *Pac-Man* has incrementally made such a big difference in earnings or if the lowest earning video in the place might not be better off as a pin game or some hybrid model.

Elsewhere the scramble goes on for the home market knock-offs in computer cartridge format or hand-held. The war doesn't seem to be abating one bit. More on this next issue when I'll offer an overview of the Consumer Electronic Show held in Chicago the beginning of June. It should prove interesting, to say the least, since there's so much going on. But now for the games at hand—marking for the first time a CC without a pinball.

Williams's *Robotron*

What can you say about an old-line company that's a relatively new kid on the block but has proven its worth with only a single game: *Defender*? And now comes the next in line hoping to carry on the legacy, which it seems to be capable of doing.

PLAY: With only two joystick controls, both eight-directional, the left for maneuverability and the right for firing, this alone is like trying to rub your stomach and pat your head at the same time. *Robotron* is fully loaded. The screen is filled, literally, with such creations as tanks, spheroids, enforcers, grunts, hulks, electrodes, and people—not necessarily in that order. Suffice it to say that there's more than enough of everything everywhere with fast-paced action that only gets more so with each succeeding level of play. The strategy of the game is to direct a mutant clone, armed with special optic lenses, against the robot forces who are out to get the last of the humans—so much like *Defender*—the purpose here is not only to destroy but also save the little folks on screen, with both resulting in points.

ANALYSIS: *Robotron* is an incredible game because so much is happening at once. In fact, some may even think that there's too much. The screen is literally filled to the rafters on each succeeding level of play, and the many who will try their hand(s) at it will need to be very, very quick. Because of this, *Robotron* won't be for everyone. There will be those who will get burned right away and maybe even turned off as a result, but others will keep coming back for more and improving along the way. It's almost an intangible, non-programmed feature that is very much a part of the game play.

Utilizing the entire screen, the player is thrust in the middle of the action and must then blast, rescue, and maneuver around the board. He must accomplish the task of getting everything in sight that can be gotten, without getting wiped out, before moving on to the next level and then the next and so on, with subtle nuances along the way.

GRAPHICS: I wonder if Williams hasn't come up with some new colors, because *Robotron* seems to have it all. It's bright, lively, and the effect when a wave is completed is almost worth the price of admission. If anything, this aspect of video seems to only get better, for the most part, and it has to have an impact on the player. Add to this some very good sound, and you have a strong package.

PROS & CONS: At first sight, there's no question that *Robotron* is visually an exciting game, but players are going to find that behind the colors and images is some lightning quick action that demands a certain level of video expertise and comfort. It's not going to be for everyone, but then, what game is? However, different than most games, *Robotron* tends to provide extremes of quick quarters even if the scoring by a player is low or high.

An example is that I've watched players get into the hundreds of thousands and they've done it, seemingly, in less than a couple of minutes. For any operator the implications are clear. In addition, the use of only two joysticks is bound to be appealing as the trend continues with simplistic controls and more activity on the screen.

However, here, it might be misleading since the functions of both make it essential that a player know what his left and right hand are doing, separately from each other. All in all, though, there's more than enough to tax the great player or allow the novice a progressive learning experience to hone his/her skills.

RATING: There's a high level of activity which is very different than any other video game in terms of its effect and demands on a player. But the challenge and excitement is definitely there for a solid #### as Williams continues to roll on in video.

Atari's *Dig Dug*

Atari has accomplished so much that I was surprised to see this newest effort which reminds me of a model Bally was showing at the AOE called *Rocky Roto*. What the relationship might be, I don't know. Following on the heels of *Tempest* and the combination of this and *Asteroids* in the guise of *Space Duel*, the selection of this acquisition, under license from Namco, seems to not be in keeping with the general flow of development coming from Atari. Maybe this is just a fill-in while they ready their next heavyweight contender.

PLAY: A joystick and button control take the player on a create-your-own-maze-type of game which is billed as the result of 'visioneering'—a term for new engineering techniques and greater memory capabilities. The screen is portioned into different color levels, with the top being blue and the bottom being yellow, brown, and a darker brown—the shades of the dirt below.

The object for players is to maneuver Dig Dug around, creating tunnels along the way, to avoid Pooka, a little red tomato

villain, and Fygar, a fire-spitting green dragon. These little creatures come alive when exposed to the air in a tunnel or cave, and it's then that the player must move around the board and try to trap the guys by surprise. The player pumps them up until they burst, or lays a trap by digging a tunnel under a rock so that when either pass they're squashed.

In addition, there are vegetable prizes around for Dig Dug to collect and in so doing, gain extra point totals. When the Pookas and Fygars are destroyed, either directly or from being led to the surface where they can escape, the game will begin at the next level of play and so on.

ANALYSIS: Similar to *Tempest*, *Dig Dug* provides players with an opportunity to choose from a different number of skill levels at the beginning of the game, and when the game is almost over, (Remember Stern's *Super Cobra*?) the player has the option to continue play at the same point by inserting another coin. The strategy of play really isn't too bad because it gives an individual a chance to freelance and create his own patterns. This could be thought of as a further involving and interactive quality that is sure to attract many types of players. In addition, you have cute little personalities running around the screen. Many of the new games try this approach to appeal to a wider range of people—especially women. And it's not too difficult to learn what to do. This adds up to a solid integration of visual display, technological capabilities, and simple player controls and directions.

GRAPHICS: *Dig Dug* is colorful, especially with its split-up screen that can catch the eye of anybody wandering by. But, with the overwhelming success of *Pac-Man*, everyone seems to be searching for that element of character appeal that might prove to be the difference and set a particular model above and beyond the pack. Here there are three distinct characters that are embellished a bit more than might have been thought necessary a few years ago. The result is effective, although not earth-shaking (no pun intended).

PROS & CONS: In this day and age of the video game, almost all games can generate some income, and this effort should prove no different, although its staying power might be in question. Even with the broadening factor of no set pattern or maze to follow, the ultimate rewards might not be enough to keep players coming back for more. One point in its favor is that it is different from the rest of the games it will be competing with, but is it different enough in this day and age?

RATING: Like in the old days of pinball when everything wasn't an out and out winner, *Dig Dug* seems to be a strong, standard game that might find a niche for those who are playing the field of what's available at their local game room, and for this we'll give a ##½ and hope for more next time from this major force in the industry.

Rock-Ola's *Pioneer Balloon*

Ever since this legendary name in the coin-machine industry decided to enter the new game in town with video, its efforts, if nothing else, have resulted in a series of stylistically distinctive machines which have offered colorful action, a storyline, and even a plot.

PLAY: The Fifth Dimension might want to sing "Up, Up and Away" if they saw this video game which has players maneuvering a pretty lively hot air balloon through all means of peril. At first it's the Old West and covered wagons below, from which arrows are shot to down the balloon. In addition, there are birds soaring around in the sky which also need to be hit before a player can move on to action that features natives throwing boomerangs as well as those ever present birds.

The next threat takes place over water and, besides the birds, floating gorillas below are hurling coconuts trying to wipe out the balloon. If the player can get by this, the balloon is suddenly caught up in a sequence marked by swirling tornados which have to be passed through in order to return back to the old frontier and horse-drawn cannons before it's on to the

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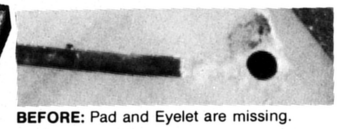
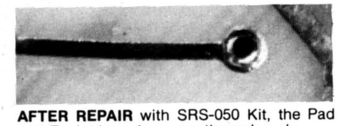


BEFORE: Pad and Eyelet are missing.



AFTER REPAIR with SRS-050 Kit, the Pad and Eyelet have been neatly replaced.

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landing at Fort Freedom. The player then completes the round and gains the chance to do it all again.

ANALYSIS: In *Pioneer Balloon* the action departs from space with side to side movement and the obstacles below and above on a course that methodically moves from one detailed sequence to the next. This repetitive play might prove a positive for some players or a negative for the same reasons depending upon what an individual wants for his quarter. However, given the chance, this game can grow on players if they're looking for sublevels with their entertainment, and by this, I mean the relationship of the plot to the action.

GRAPHICS: As has been the case with Rock-Ola's previous games, the real emphasis isn't so much on the complexity of game play or loaded up features, but rather on detailed storyboards where an almost cartoon-esque effect is the major draw and power that the machine must live or die with. The sound effects complement the display, but it is really the visuals which take up the attention and importance of the total package. There's good use of color.

PROS & CONS: *Pioneer Balloon* is a conventional effort that really doesn't bring anything dramatic into play. In many ways, Rock-Ola seems to be locked into a predictable pattern because of the nature of its games and the seemingly critical need for that graphic strength over almost everything else. Maybe the real need is to have their cake and eat it too with games that don't sacrifice visual representations for the sake of more sophisticated play. However, for now, the thinking seems to be clear and might lead an operator to question whether the variation on a theme is sufficient to invest in floor space and highly similar, although graphically different, action.

RATING: Once again it's a question of cute, living cartoons and whether distinctive visuals can carry a machine over the long haul. So for *Pioneer Balloon*, let's think of it as a strong ## and hope that succeeding models bring about a new plateau rather than a rehash of the standard fare.

Well fun seekers, what seems to be evident in terms of video is that many companies and models are really only giving players more of the same. True, there are some notable exceptions, but even these will become obscured when competitors see a chance to imitate rather than innovate. The result is that players are really only getting a limited choice of action on screen, and the time will come, soon I feel, for diminishing returns which will force new development and greater creativity to bring about the next level of games. Operators need to be more selective in gauging what a given location can handle.

Unfortunately, what I have seen more and more of, which may be a cause and effect of circumstance, is the large location that has multiples upon multiples of given models so that out of thirty machines, players might only have a choice of a dozen different games. It is a problem and is going to have to change somewhat over time just to reflect a more total array for players where they can have the chance to spread out their money.

Another factor is that video is falling into a trap which seems to be indicative of the industry. It hasn't been that long since pinball was the game and manufacturers who were turning out flipper machines were having a hard time filling the demand. Everything, good, bad, or otherwise, seemed to be needed, and as a result, the companies stuck to what was tried and true rather than risking developments which might have led to machines which departed from the norm and ran counter to the majority of design trends. Only when things got tough did the efforts come.

Now video is following the same pattern as the cycle continues with the new form of entertainment, and the question is when the manufacturers will find it timely to bring on the next generation of equipment. It makes one think if anyone ever learns from past history. And with that said, until next time, be well and prosper. •

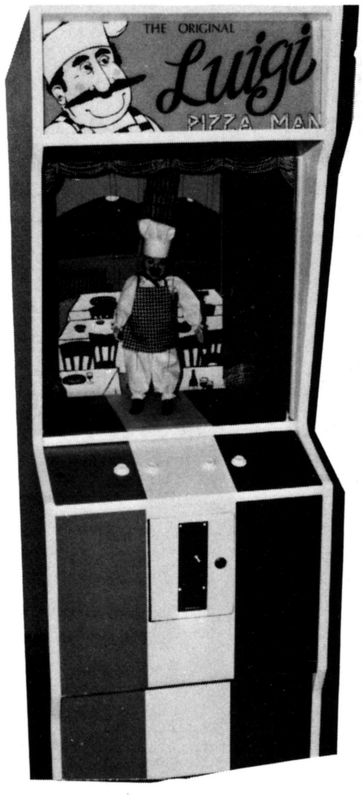
Pizza man

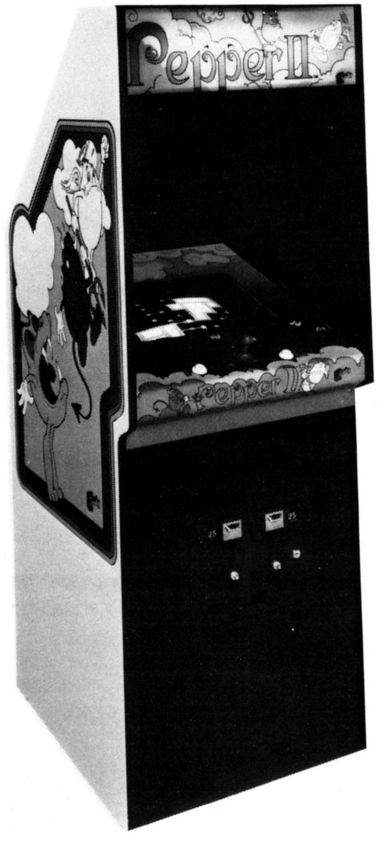
Luigi, a marionette dressed as a pizza man against an Italian backdrop, talks and dances as Italian music plays in the background.

United Billiards Inc., manufacturer of *Luigi*, calls him a second-generation Bimbo after the company's Bimbo, the dancing clown. *Luigi* is equipped with the United Billiards's patented "works-in-a-drawer" mechanism, which the company said makes the electromechanical game maintenance free.

Luigi is geared for the three to nine-year-old prevideo age market. His motions are controlled by four buttons that a child can use to make his arms and legs dance to the music.

He is constructed of handcrafted wood by United Billiards with a solid-state tape cartridge player. Its dimensions are 22 inches deep by 24 inches wide and stands 67 inches high. This game weighs 175 pounds and requires no assembly.





Devilish twist

Pepper II may give you a devil of a time!

Manufactured by Exidy, *Pepper II* is a colorful secret maze game where you control Pepper, a character who is usually an angel but at times takes a devilish twist.

Pepper explores four sides of a cube for hidden areas, leaving tracks resembling a zipper as he goes. Once he's enclosed an area with tracks, a colorful pattern fills it in and points are awarded.

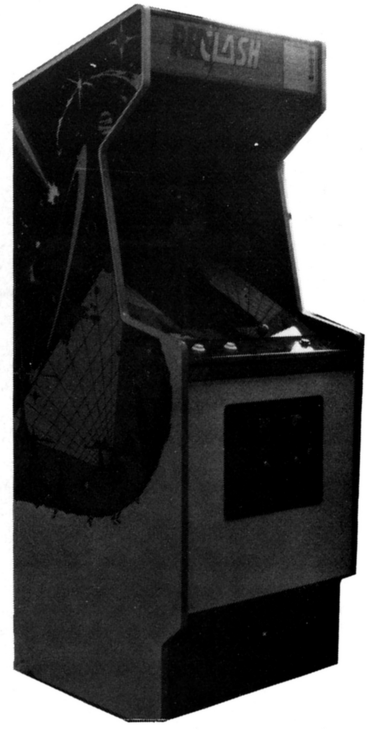
During his voyage, Pepper must avoid Roaming Eyes as well as the Whippersnapper, a bright crimson enemy who "unzips" any of Pepper's tracks not fully enclosing an area. When Pepper encloses an area containing a pitchfork, he turns into a devil for a few seconds. At this point, he can capture the Roaming Eyes for points. The Whippersnapper still remains a deadly threat.

Space attack

Maneuver your spaceship in any direction and attack aliens with a continuous fire laser with *Red Clash*, a space action video game manufactured by Glak Associates and fully licensed by Terkan, the Japanese manufacturer.

Red Clash features fives phases and continually changing graphics. The first phase is fast, the second phase has a hyperspace effect, and three more phases follow.

The logic board is operator programmable to adjust difficulty of play. The operator may also change bonus awards, select coinage, and set sound levels.



Ride 'em kid

UTEC Incorporated has introduced a new line of Mini Kiddie-Rides that are lower to the ground and designed with the safety of the younger children in mind.

The small base size will take up a minimum of floor space and allows rides to be placed in areas where they were unable to fit in the past.

Two Horses, an Elephant, and a Giraffe are available. These space-savers are a one-piece high-density polyethylene unit mounted on a fiberglass base.

Slam, dunk!

Air-Table-Hockey of Boulder, Colorado, announces the return of an arcade sport—the new *Air-Table-Hockey* unit. It has been designed by and for the players of the sport to assure the potential of this game.

The table features a brown formica top for speed, player appeal, and problem-free operation; a white center-line for tournament play; an improved goal design; and superior quality mallets and pucks. This is the only air-table available which is approved by the U.S. Air-Hockey Players' Association.

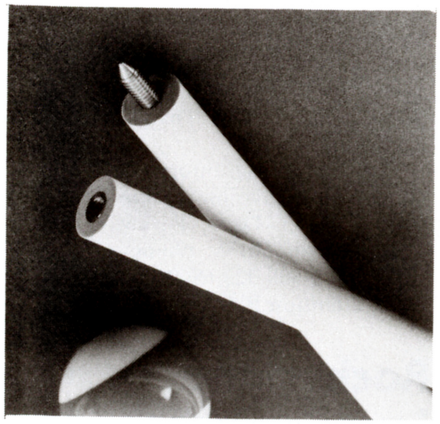
Air-Table-Hockey is a new company begun by several players who have a long record organizing local, state, and national tournaments and promotions. Air-Table-Hockey will sponsor two national tournaments per year; the first is scheduled for late August.

In addition, the operator is offered promotional information, maintenance tips, official rules, and player newsletters. A series of exhibitions by professional players is also planned.

Other features of the table include: automatic scoring; "game over" light; adjustable time limit; easy access to parts through doors on each end; and durable cabinet with sturdy H-frame leg construction. Its dimensions are 103 inches by 50 inches, and it weighs 450 pounds.

Aids to the Trade

Invisible joints



The *Hustler*, a new cue featuring an "invisible" joint, has been introduced by The Valley Company, Bay City, Michigan.

This American-made cue has the appearance of Valley's one-piece, four-prong cues, but is jointed for added convenience and ease of carrying. Where the shaft and butt are joined, the wood-to-wood connection is virtually invisible, and the rigid joint is held in place by a brass screw-and-socket insert with 5/16-18 thread. In addition to the standard model, the *Hustler* is also available with nylon, leather, and linen wrappings.

The *Hustler* has a shaft of hard, white selected maple, specially kiln-dried to preserve color and assure straightness. The butt is made of a variety of exotic South American and other imported hardwoods for added color and distinction.

Careful selection of the butt woods and precision shaping make possible the natural weighting of the cues in a choice of light, medium, and heavy weights. The tips are green chrome genuine leather, and ferrules are made of a hard, dense fibre material. The bumper is resilient, non-marking rubber, and is exclusively designed by Valley.

The *Hustler* as well as Valley's complete line of one- and two-piece American-made cues are available through coin-machine operators, billiard supply dealers, sporting goods stores, or may be ordered in quantities by dialing the Valley cue Hot Line, 1-800-248-CUES.

Weighty matter

Time is money and K-Tron Arizona Inc., has recently introduced the *K-Coin Portable Coin/Currency Counter & Weighing Scale* for amusements and games, laundry, banking, and retail applications.

The scale features speed of counting, and therefore, increased security and portability—the scale can run off a battery or wall outlet and can be recharged from the wall outlet or cigarette lighter—chargers for both are included with the scale. In capacities of 6, 13, 33, and 66 pounds, the *K-Coin* has no mechanical parts to break down.

Additional benefits are single coin, dollar bill, multiple coin, and token counting, so that counting can be done not only on routes, but at central counting facilities. Cashing out can be done quickly and accurately at individual teller stations or cash registers, in addition to counting rooms. For route operators, cash splits and bank deposits can be done directly from the route, decreasing lost time and increasing security. The scale features a coin accumulator, memory, and accuracy of +/- 1 coin in 2,000.

The scale is also available in a remote readout form (especially for banks and permanent counting facilities). In addition, a heavy-duty plastic scoop is available as an option.

For more information, contact George Mahon at K-Tron Arizona, Inc., 7955 E. Redfield Road, Scottsdale, Arizona 85260; phone 602/991-0990; telex 165034.

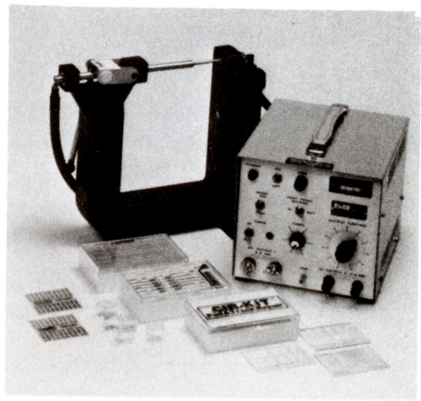
Save damaged PCB's

Pace's *PFP-30 Fused Eyeletting System* permits field repair of damaged or missing plated-thru holes and terminals on PCB's with factory quality.

The *PFP-30* is a system that permits installation of a variety of hot fused eyelets and funnelets for a broad range of setting conditions. It also eliminates the solder "blowout" problems associated with conventional eyeletting techniques.

The *PFP-30* is easy to set up and align precisely; it can be used in a vertical or horizontal position, and it has a long, deep reach for hard-to-get-at repairs.

Pace's *Fused Eyeletting System* includes: a fused eyeletting machine, tool kit, Cir-Kit (with pre-tinned/scored eyelets, TRAK PADS, etc.), and a heavy duty power source.



Pace's *PFP-30* is available from Pace representatives worldwide. More information may be obtained by contacting: Marc Siegel, Pace Incorporated, 9893 Brewers Court, Laurel, Maryland 20707; phone 301/490-9860.

Copper wick

"Using the wrong desoldering braid can ruin a construction project or expensive piece of ham gear under repair," said Lou Friedman, Chemtronics vice president. "That's why we're making *Chem-Wik* professional, mil-spec de-soldering braid available to the amateur operator and other electronics hobbyists."

Friedman said that bargain wicks cannot be trusted because some are coated with a corrosive flux which degrades circuitry, causing problems with resistive joints and unwanted current paths down line.

Chem-Wik is safer and more effective because it's manufactured with pure copper braid, which permits the user to see the absorption of solder as it travels up the wick, the company said.

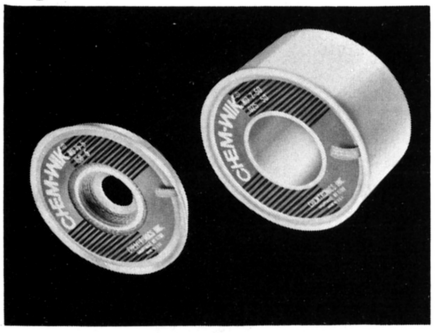
Another characteristic of this wick is its pure rosin, water-white flux. This coating is completely free from halogens and corrosive chlorides which can leave harmful deposits on the work. The rosin is ultrasonically applied to impregnate the wick with a perfectly uniform and smooth flux for more rapid and efficient wicking action.

This results in minimal flux residue,

instant solder absorption with less heating of sensitive components.

In fact, *Chem-Wik* is manufactured so that it meets strict military requirements and even NASA specs for desoldering braid used on equipment found in spacecraft.

Chem-Wik is available in five gauges: .025″, .050″, .075″, .100″, and .150″ for all desoldering applications and in five-foot and economical 25, 50, and 100 foot lengths.



Chem-Wik may be purchased at any authorized Chemtronics distributor. Details and the names of local distributors may be obtained directly from Chemtronics Inc., 681 Old Willets Path, Hauppauge, New York 11788, 800-645-5244. In New York 516-582-3322.

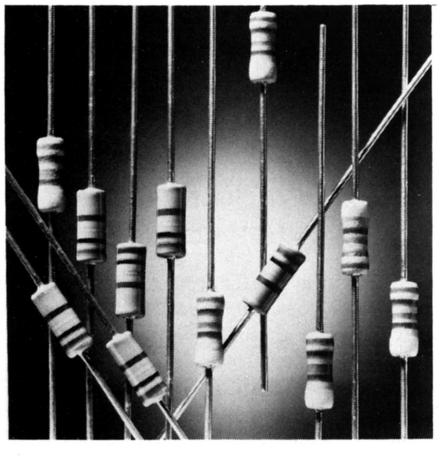
Flameproof resistor line additions

Seventeen new flameproof resistors have been added to the Sylvania ECG flameproof resistor line available from the Distributor & Special Markets Division of Philips ECG Inc.

The seventeen new types with the existing one-quarter, one-half, one, two, five, ten, and twenty-five watt resistors bring the total number of available devices to 1,039 individual types.

The resistors are all one-half watt types with five percent tolerance. All additions have values under 1 ohm and are used extensively in wide varieties of semiconductor equipment.

Sylvania ECG flameproof resistors are non-combustible because their metallic resistance element is sandwiched between an inner ceramic core and an outer ceramic coating. This construction also provides resistance to normal operating current despite variations in ambient temperature, humidity, or voltage.



Sylvania ECG flameproof resistors can be used to replace carbon composition, carbon film, wirewound, metal film, and cermet film resistors.

A brochure and information on Sylvania flameproof resistors and ECG semiconductors for entertainment, industrial, and commercial replacement applications may be obtained from Philips ECG distributors or Philips ECG Inc., 1025 Westminister Drive, Williamsport, Pennsylvania 17701.

Talking bill changer

A new *Change-Mate 500* bill-changer featuring microprocessor programmability has been introduced by Gametecniks Division of Casino Technology Corp.

The unit accepts U.S. currency bills in $1, $2, $5, $10, and $20 denominations and dispenses up to 10,000 quarter-size coins or even more tokens.

The *Change-Mate 500* provides solid-state reliability, human adaptability, and a wide range of revenue controls for absentee managers.

For wall mounting, the heavy 14-gauge steel cabinet measures 30″H × 24″W × 12″D. A base stand is available for floor location. *Change-Mate 500* operates on 110-125V, 60 Hz. Servicing is simplified by the use of plug-in PC boards.

Among its many standard features are anti-jackpot precautions, i.e. computer-controlled "time out" depending upon the number of coins to be dispensed and microprocessor control.

Standard audit control features include diagnostic display, time/day readout, dollars accepted register, and the value of coins dispensed. An alarm system sounds a siren upon unauthorized intrusion and can notify arcade owners.

A variety of options may be added to *Change-Mate 500* at the factory or in the field to accomplish practically any human-like functions desired.

Programmable dispensing provides fourteen time periods (AM/PM, seven days) for variable or bonus token distribution. An electronic automatic alarm is capable of dialing up to two phone numbers to deliver a warning message when the machine senses tampering or other service-connected problems.

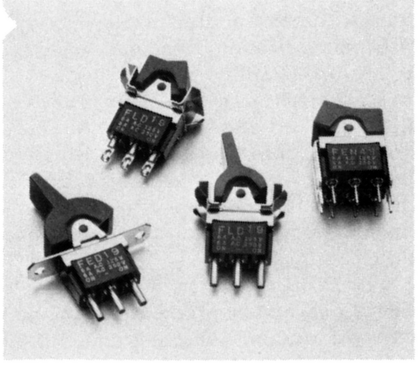
Automatic telephone audit information also is available. By dialing a special number, the dispenser will tell the caller the value of bills accepted since its last clearance. The *Change-Mate 500* even can be programmed to say "Thank You" to the customer.

For additional information, contact Gametecniks Division, Casino Technology Corp., 10503 Delta Parkway, Schiller Park, Illinois 60176; phone: out-of-state toll free 1-800-323-6869, local 312-671-6700; attention Bill Avery.

Rocker and lever switches

The Component Products Division of Industrial Electronic Engineers, Inc. (IEE), a manufacturer of displays in diverse technologies switches announces the *OTAX* Line of rocker and lever switches.

OTAX switches feature molded-in gold flashed terminals for increased life expectancy and high reliability. Other standard features include: fine silver contacts, individual contact springs, stainless steel frame, lever stop device, standard 0.2″ terminal pitch, hollow tipped terminals, and a high torque bushing. They are available in SPDT, DPDT, 3PDT, and 4PDT configurations with many combinations of alternate and momentary switching functions.



OTAX Rocker and Lever Switches have a wide choice of actuators and terminals. They are UL listed for up to 250 VAC at 6 Amps. *OTAX* switches are available from your local IEE distributor.

For further information, please contact your local IEE Distributor or IEE, 7740 Lemona Avenue, Van Nuys, California 91405; Lou Hronek, product manager, Component Products Division, (213) 787-0311, ext. 392.

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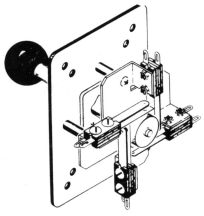

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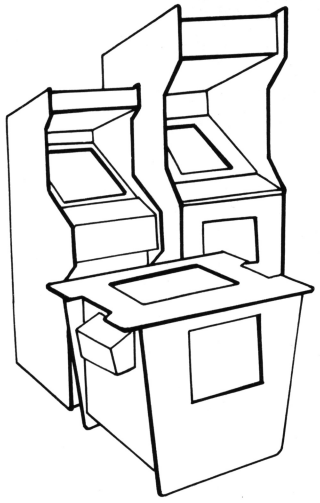

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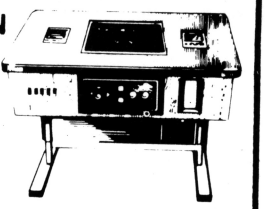

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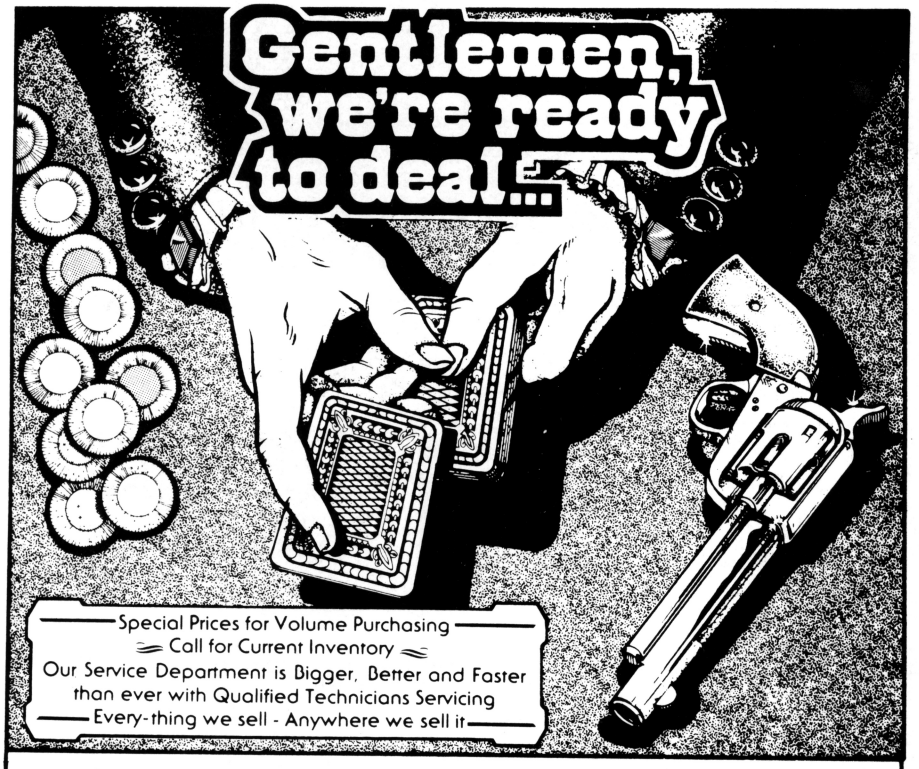

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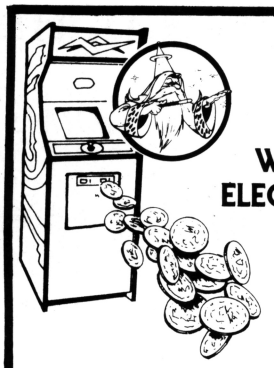

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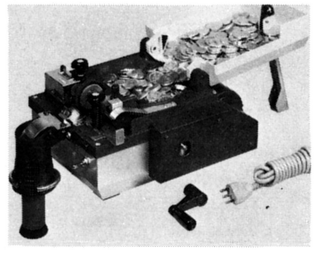

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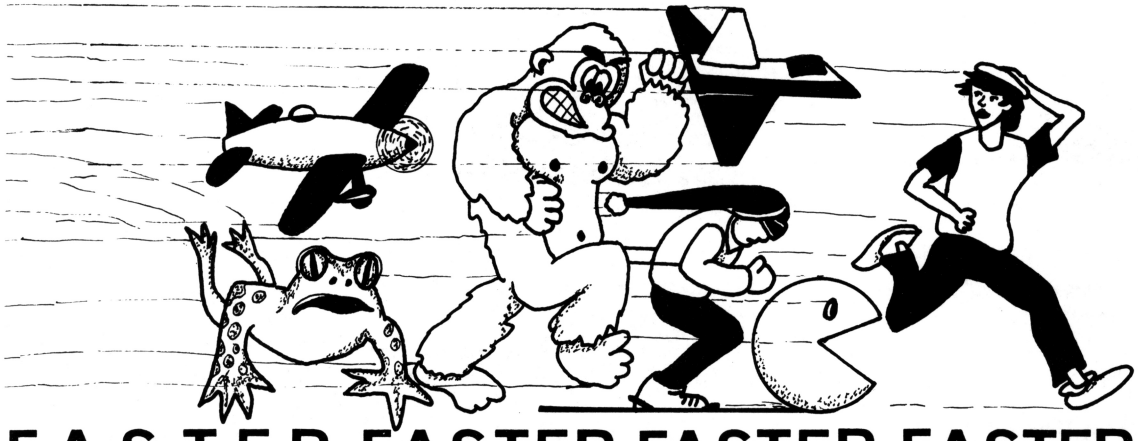

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Question: Do you think you, as the buyer, have a right to use speed-up kits in your games?

Norris Hillstad, UNOMAC Service Inc., Santa Monica, California

I think I should have that right because I am paying almost $3,000 for a piece of equipment. If I can make it play better and make more money than what they built it to begin with, I should have the right to do it.

Patents are fine if a person copies the whole machine. For a person to change something for his own benefit—if he bought it—he can't throw away a $3,000 machine and buy a new one.

Every machine is built to be a challenge until they figure it out. The only way they can get a better challenge is by speeding it up or by making definite changes in the pattern. Speeding it up just makes a minor change really.

Gordon McClellan, Pine Ridge Service Inc., Bemidji, Minnesota

Yes. Because it's not changing the original aspects of the game. It's not converting a different type of game to that same type of game, so it's not infringing upon copyrights.

Jerry Crook, Care Dist. Inc., Indian Rocks Beach, Florida

Yes I do.

After a while, kids start beating the games to death. If they play it for long periods of time, they end up tying up a $2,500 machine for ten, fifteen, twenty minutes on one quarter. You don't make any money on that machine.

Speed-up kits let the novice player play his first few minutes so he has fun; and the experienced guy, it will give him some fun out of the thing but quicker so that he is not tying up the machine. I think it is unfair if they (manufacturers) say it is a copyright infringement.

Ron Lee, Leco Vending Co., Chester, Pennsylvania

I believe that when we purchase the equipment we should have the ability to modify the software to our advantage—whether it's speed-up kits or any other type of minor modifications. It would increase the revenue in general for the whole industry.

The manufacturers are not making them available; we have no other recourse. I believe it's only a matter of time before this issue will be put to bed once and for all through the courts.

Ronnie Cazel, Ronnie's Amusement Service Co., Wichita, Kansas

When you buy the game, I would assume it would be yours anymore than if I had an automobile and bought it from Chevrolet and I decided I wanted to put Ford wheels on it or jack it up high or slant it up or slant it down. It's mine.

I ought to be able to do what I want to do with it. It's hard to mention copyright to an operator because he really doesn't understand. He understands it on music that he can't change. But it also seems that with music a guy doesn't always play it the same way as it was originally written.

A pinball machine, I would assume, in the older days had a copyright. We didn't change them too much. We did add flippers at some time or the other or a third top bumper. In the early days we changed it around. Of course, no one said anything to us.

I've traded off a '76 automobile. If the other guy wanted to put Ford fenders on it or something, that's his. He ought to be able to do what he wants to do with it. •

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