

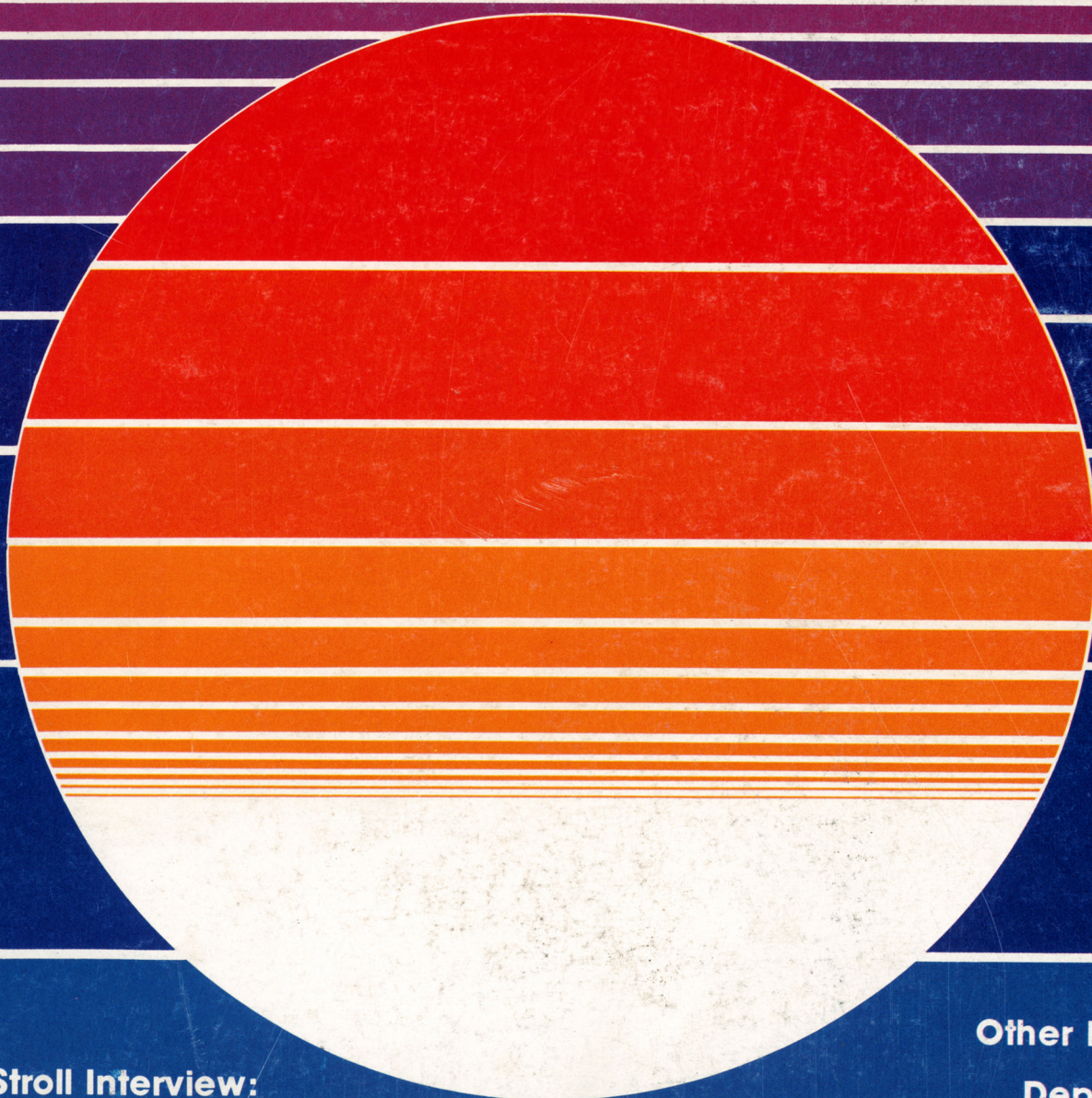
The World's Leading Amusement Machine Trade Publication

\$2.50

# PLAY METER

Volume 5, Number 3

February 15, 1979



**Michael Stroll Interview:**

**What's New on  
the Horizon for Pinball**

**Other Features:**

**Depreciation**

**A Warning about the  
new Pinball Movie**

**A 'History' of Pinball**

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# PLAY METER

Vol. 5, No. 3

February 15, 1979

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# PLAY METER

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# The dilemma and needs and those 'other' operators

By Thomas J. Poplar

Return on sales, return on investment, sales per square foot, administrative expense to sales, percentage of owned versus leased equipment, percentage of pinball versus arcade equipment—something really is happening in the entire dimension of the operator, and something really is *not* happening!

I am a relative newcomer to the industry and quite frankly didn't realize for a while that there is a rather significant differential in the dubious classification misnomered, "operator."

The distributor today is dealing with an entirely different element of operator and is manhandling him in the same manner he has dealt and manhandled the "route operator."

That's right. I'm referring to the regional mall operator of family amusement arcades. That individual who is or who represents the owner of same in sophisticated and dignified lease negotiation, who toils for hundreds of hours in design and architect, who represents his industry in front of city planning, city council and zoning variance, who hires, trains, pensions, and gainfully employs in abstentia, and is responsible for the bottom line to his employer or himself.

Where are we?

I, like you, read every publication, cover to cover, every month. I'm read out. I'm a little sick and tired of reading about the 60/40 and the 70/30 split or the one play/two bits lead stories when, in fact, nothing could be of lesser importance to arcade operators. This should not be confused with the advertising content, by the way.

The proverbial "operator of the month" is invariably somebody from Timbuktu, U.S.A., whose grandfather started the business 83 years ago and nurtured it from eighteen stops to ninety and still goes along with the driver from time to time as grandad used to.

And while all this is going on, we are allowing the manufacturer and the distributor to conduct business with us as he has done before the advent of the regional

shopping mall game room syndrome. What we ought to do is recognize what we have done and are doing to supplement the strength of the manufacturer and the distributor.

Can't we see we have created a seller's market and in effect have driven the price up from manufacturer to operator passed through the distributor!

We are vying against the street operator virtually begging for equipment "hot off the presses," so to speak, in return, paying top dollar and rewarded in return, by seeing a bonus, the privilege of a test piece. Who else but us is the dumping place for old equipment when placing an order for fifty games to fill a room, kind of convinced to add a few "filler" pieces?

It may be the time is now for us to look for a "volume by location differential."

In essence, or in summary, wouldn't you, "Mr Regional Game Room Operator" like to attend a convention that included, instead of shop talk revolving around "service calls at midnight to fix the jukebox," seminars on the following:

A. The qualifications and minimum job description of a store manager versus part time game room attendants.

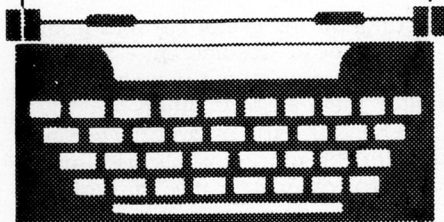
B. Cash control and access to—the dollar bill changer, keys, master locks, the collection itself, and number of times weekly.

C. Integrity and the employee, incentives, polygraph, hiring in the field with home office scrutiny, the recent advent of the unmetered machines, and how to use it to advantage.

D. Reasonable data on costs and percentages of cost to sales, including but not limited to: building rent, equipment rent/amortization, and payroll as a percentage.

E. Recognize the whole business of cost in our version of an operator versus the cost incurred in the street operator, certainly a proud and cognizant man in a proud and cognizant industry, but, at least, different.

## Mailbox . . . .



boxes as long as the songs are different. So how about it? The Copyright Royalty Tribunal (CRT) is getting us in the pocketbook; so why shouldn't we make someone else pay? Maybe this would generate a protest from someone other than the operators and would help end this expensive madness.

**J. Logan**  
Dime Electronics  
Minneapolis, Minnesota

[Ed. Note—We've heard a lot of

*suggestions along these lines of late. But it's hard to determine how large a segment of the jukebox industry feels the same way. For something like a boycott to be successful, all the operators' efforts must be coordinated. We at PLAY METER in a recent "Mailbox" response suggested a possible boycott of all records from one of the performing rights societies. But would operators be interested in such activism? Let us know, send in your comments and suggestions.]*

## Unnoticed

I read with interest your editorial concerning universal cabinets in the December issue of PLAY METER (page 4).

Their going unnoticed is nothing new! We have been manufacturing a product called Game Brain that is basically a credit only gaming machine utilizing the same technique. Our unit, however, requires only the simple changing of a plug-in memory board that allows conversion from a video slot (*Bandito*) to Roulette, Craps, Blackjack, or five others.

Keep up the good work.

**Stephen C. Perry**  
Amusement Systems Corp.  
Cape Canaveral, Florida

## Boycott

This is my reply to the letter you published from B.M.I. concerning its share of the copyright royalties, imposed fine, or whatever they want to call it.

Just what would the record industry do if every operator in the United States were to stop buying records for a period of ninety days or so? We operators can all rely on our libraries, and our customers would have to play whatever we place in our juke-



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# Depreciation-- Which method is best?

## Part Two of a Three-Part Series

In the first article of this series on depreciation (PM, Jan., p.16), the most applicable methods of depreciating amusement games were described. The straight-line method taking equal amounts of depreciation each year, the sum-of-the-years digits method and the declining-balance method which take the biggest amounts of depreciation in the early years.

Which method do you use? The equipment operator has an easy solution to the problem. As brought out in the first article the straight-line method should not be used because this method does not do a good job of allocating depreciation so book values are close to market values. The straight-line method also was recommended for equipment whose productivity was roughly the same

throughout its useful life and equipment whose obsolescence factor is low. But amusement machines don't fall in that category either.

Therefore, the operator is left with one of the more complicated methods to calculate, the sum-of-the-years digits method or the declining-balance method. Fortunately for the equipment operator these two accelerated methods also give the best tax advantages.

Before exploring the tax advantages of an accelerated depreciation method, study Table 1. It reviews the various depreciation calculations for a machine with a five-year life, \$1520 cost and a \$200 salvage value.

It should be noted from Table 1 that the depreciation taken by all three methods totals the same \$1320 amount. The only difference is that the accelerated methods take larger amounts of depreciation in the early years and less depreciation in the later years.

Table 2 isolates the impact of the different depreciation methods on income taxes paid over the life of the machine. Table 2 also illustrates the point that total taxes paid will be the same under each method, so wherein lies the advantage?

The tax advantage to an accelerated depreciation method comes from the postponing or deferring of income tax to a later year and not escaping the payment of income tax, as is often misconstrued. As Table 2 clearly shows, regardless of the depreciation method employed, the total taxes paid will be the same, but the amount paid each year under the various methods is different.

To see the advantage of an accelerated method, you must understand the time value of money. Money is worth more today than it will be in the future because of investment opportunities which would generate income, and because of that monster which distorts our economy—inflation. A dollar will not buy next year what a dollar will buy today because of price increases.

Table 1

Depreciation Expenses by Straight-Line,  
Sum-of-the-Years'-Digits and Declining-Balance Methods

Machine Price	:	\$1395.00	
Factory Freight	:	35.00	Salvage Value: \$200.00
Sales Tax 5% of price	:	69.75	
Freight From Distributor	:	20.25	
Machine's Cost	:	<u>\$1520.00</u>	

Straight-Line Depreciation

$$\frac{\text{Cost} - \text{Salvage Value}}{\text{Life}} = \text{Depreciation Expense per year}$$

$$\frac{\$1520 - \$200}{5} = \$264$$

Sum-of-the-Years'-Digits

Years in Useful Life	Fraction of Total Depreciation to be taken each year	x	Depreciable Cost	=	Annual Depreciation Allocation
1	5/15	x	\$1320		\$ 440
2	4/15	x	1320		352
3	3/15	x	1320		264
4	2/15	x	1320		176
5	1/15	x	1320		88
SYD 15					<u>\$1320</u>

Declining-Balance

Year	Beginning Book Value	Factor x 2 times Straight-Line Rate	Annual Depreciation Expense	Remaining Book Value*
1	\$1520	40%	\$ 608	\$ 912
2	912	40%	365	547
3	547	40%	219	328
4	328	40%	128*	200
5	200	40%	-0-	200
			<u>\$1320</u>	

\*(Beginning Book Value - Depreciation Expense)

\*( $\$328 \times .4 = \$131$ , but by the declining-balance method equipment cannot be depreciated below its salvage value, which is \$200 in this case.)

Table 2

Total Income Taxes Paid on an Amusement Machine Given Normal Decreasing Revenues and a 20% Tax Rate

Straight-Line Method					
Year	Revenues*	Expenses	Net Income	Tax Rate	Taxes Paid
1	\$3000	\$ 264	\$2736	x .20	= \$ 547
2	2000	264	1736	x .20	= 347
3	1000	264	736	x .20	= 147
4	1000	264	736	x .20	= 147
5	1000	264	736	x .20	= 147
		<u>\$1320</u>			<u>\$1335</u>

Sum-of-the-Years-Digits Method					
Year	Revenues*	Expenses	Net Income	Tax Rate	Taxes Paid
1	\$3000	\$ 440	\$2560	x .20	= \$ 512
2	2000	352	1648	x .20	= 329
3	1000	264	736	x .20	= 147
4	1000	176	824	x .20	= 165
5	1000	88	912	x .20	= 182
		<u>\$1320</u>			<u>\$1335</u>

Declining-Balance Method					
Year	Revenues*	Expenses	Net Income	Tax Rate	Taxes Paid
1	\$3000	\$ 608	\$2392	x .20	= \$ 478
2	2000	365	1635	x .20	= 327
3	1000	219	781	x .20	= 156
4	1000	128	872	x .20	= 174
5	1000	-0-	1000	x .20	= 200
		<u>\$1320</u>			<u>\$1335</u>

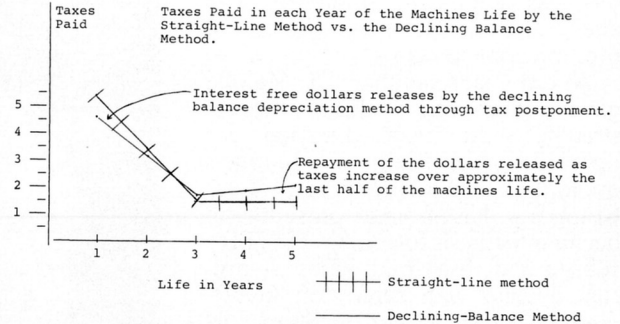
\*These are hypothetical decreasing revenues for an amusement game. Total taxes paid under any of the three methods would be equal regardless of the revenue figures or tax rates used.

Table 3

Income Taxes Postponed by the Declining Balance Method vs. the Straight-Line Method

Year	Income taxes by Straight-Line	Income taxes by Declining-Balance	Taxes Postponed by the Declining-Balance Method
1	\$547	\$478	\$ 69
2	347	327	20
3	147	156	- 9
4	147	174	-27
5	147	200	-53
	<u>\$1335</u>	<u>\$1335</u>	<u>-0-</u>

Chart I



Proof of inflation can be found in the price you paid last year for a pinball machine as compared with the price you pay this year.

As shown in Table 3 under an accelerated depreciation method, taxes postponed in years 1 and 2 are paid back by the negative postponement (or payment) in years 3, 4, and 5.

In the example, the advantage of the accelerated methods is that the operator has the use of an additional \$69 in year 1 and an additional \$20 in year 2. These amounts may not appear significant, but remember these figures are for one machine. The amount per machine will, of course, vary depending upon your income per machine and your tax bracket.

Another important point is that the money you are freeing for investment or working capital is interest free money! A hard deal to beat. So while an accelerated depreciation method does not save you tax dollars, the postponement of the payment of the taxes is the equivalent to an interest free government loan paid back in increasing installments during the last half of the machine's life.

Chart 1 plots the taxes paid by the straight-line method and the declining-balance method showing the postponement area and the repayment area. The tax numbers plotted in Chart 1 come from Table 3.

To answer the dilemma of which accelerated depreciation method to use, one must first ask the question: *What objectives am I trying to achieve with depreciation? Are you trying to keep book values fairly close to market values? Or are you trying to minimize income taxes, legally, of*

course?

Table 4 shows the sum-of-the-years digits method versus the declining balance method. The tax postponement by the declining-balance method is not as great as it was when compared with the straight-line method. However, it can be a considerable sum of money if the operator is depreciating a large number of machines. If your objective is to maximize tax postponement the declining-balance method is the method to employ because it accomplishes that goal.

If your objective is to maintain book values close to market values, the answer is not so simple. One would need to study the real decrease in market values of games over an extended period of time to the book values rendered by the two accelerated depreciation methods to see which method accomplished that

objective.

The tax advantages of using an accelerated depreciation method cannot be disputed. The advantage lies in the postponement of income taxes to a future period at no expense to the operator. Missing the advantages of an accelerated depreciation method would be like an operator having a new pinball machine with one broken flipper. Just as it is worth the effort to fix the broken flipper it is worth the effort to compute depreciation by the sum-of-the-years digits method or the declining-balance method that is, of course, if you want to maximize profits.

*Charles C. Ross, the owner of The Magic Coin in San Marcos, Texas, is an instructor of Accounting and Finance at Southwest Texas State University.*

Table 4

Taxes Postponed by the Declining-Balance Method vs. the Sum-of-the-years Digits Method

Year	Sum-of-the-Years Digits	Declining-Balance	Taxes Postponed By the Declining-Balance Method
1	\$ 512	\$ 478	\$ 34
2	329	327	2
3	147	156	-9
4	165	174	-9
5	182	174	-18
	<u>\$1335</u>	<u>\$1335</u>	<u>-0-</u>

## Cost, financial strategies-- seminar topics

The AMOA is again sponsoring a two-day Notre Dame University business seminar for operators, and again Dr. John Malone will be one of the principal speakers.

At last year's seminar, Dr. Malone gave a thorough analysis of profit strategy and cash planning for operators by using a mythical operation called Shamrock Music Company. His seminar presentation became the basis for PLAY METER's subsequent three-part series of articles dealing with return on investment, cash flow, and location cost analysis.

This year Dr. Malone, who is a professor of Marketing at Notre Dame, will be joined by Dr. Kenneth Milani, a professor in the Department of Accountancy, and a panel of three successful operators who will discuss business strategies they have done.

The seventh annual AMOA-Notre Dame seminar, which is scheduled for March 9 and 10 at the O'Hare Hilton Hotel in Chicago, will concentrate exclusively on cost and financial strategies designed to boost operators' profits.

The seminar is designed for top-level managers who have responsibility for decisions on costs, capital expenditures, and other factors which affect profits. The seminar annually draws some of the leading operators in the country. Registration is limited to seventy, and the enrollment fee of \$100 includes all materials and lunch on Friday and



*Dr. John Malone, a veteran of several industry-related business seminars, will be on hand again for this year's AMOA-Notre Dame seminar. His subject this time around will be on establishing a more disciplined control of expenses.*

Saturday.

Dr. Milani, who will give the first presentation on "Cost Behavior: Implications for Decision Making for a Typical Operator," will analyze the different ways cost can be broken down and, with that information, try to show how to form the foundation for effective decisions focusing in on cost and volume aspects of the overall operation. This session will zero in on cost behavior in a typical AMOA member operation.

Dr. Malone is then scheduled to

make a presentation on "Profitability Through Expense Control and Volume Strategies." The focal point of this presentation will be on establishing a more disciplined control of expenses through the development of standards of performance for all major cost categories and a range of volume levels.

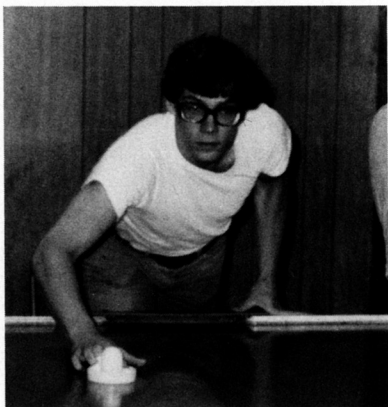
On the second day of the seminar, several leading operators will take part in a panel discussion which will concern cost reduction, profit boosting techniques. Afterwards, the conference participants will be broken up into three groups, each chaired by one of the panel members, for a discussion of the questions raised by the lectures and by the panelists.

Following that, Drs. Malone and Milani will review and comment on the panel discussion and the small group sessions. Then Dr. Malone will deliver the concluding address: "The Economy, Past, Present, and Future, with Emphasis on Implications for Operators."

Dr. Gerry Sequin, who has been on Notre Dame's faculty of Business Administration since 1959 and has been the director of the graduate program there and the chairman of the Department of Management, is again the seminar coordinator.

Operators planning to attend the two-day seminar should make their reservations for rooms directly with the O'Hare Hilton Hotel by February 26.

## Douty defends title in match play



Jesse Douty

In a remarkable example of stamina, Jesse Douty successfully defended his national Air Hockey title in match play competition against the second- and fifth-seeded players in the country on successive days.

In a match that had been brewing ever since a showdown in the finals of the national Air Hockey championships this past summer in Houston (PM, August, page 26), Douty once again turned back Phil Arnold of Houston. Playing this time at Doc Watson's Pub in Philadelphia January 2, Douty proved once again to be too much for the Houston

player.

Then the following day, Douty met Mark Robbins of Boulder, Colorado at a showdown at Banner Specialty Company's Philadelphia showroom January 3, and won that match too. The back-to-back title defenses lay to rest for the time being the challenges Douty had to overcome to retain his national title.

Arnold who is the second-seeded player in the United States is also president of the national players' association. Robbins, the fifth-ranked player, also conducts Air Hockey promotions in his area from time to time.



# Rosen develops an arcade that's not for kids

"We have created something in Dallas that has never been done before with an arcade. We have designed an environment that will complement the excitement and innovation of today's electronic video games and pinball machines and make players feel they are part of the action." So says Fred Rosen, president of M.A.R.S. Management Corporation of Texas, who is bringing electronic excitement to Dallas in a new amusement center called "Scores," located in European Crossroads Shopping Center.

"Adults have always loved games," Rosen said. "But, in the past, arcades have been thought of as a place for kids—that is no longer the case."

M.A.R.S. Management chose Dallas for its first location because the Metroplex is growing, with a mobile and young population that gets out a lot. Scores will cater primarily to the active crowd that frequents discos, restaurants, and clubs in Dallas. No one under seventeen will be permitted in the evening, unless accompanied by an adult.

Scores' decor reflects today's contemporary design. The ceiling is covered with a series of progressively larger neon circles, designed locally by Roland Edwards. The 4,500 square-foot floor space, of "coin-indented" black rubber acetate by Nick Glasbrook, is divided into semi-circles by metallic partitions. A lighting system is responsive to the sound system that was custom designed by Showco, Inc.—all of which adds up to an ultra chic environment.

"With approximately 100 new electronic video and pinball games, we believe we'll attract families, couples, and singles during an evening out to try their luck on some fascinating machines in an exciting environment," said Rosen.

The chic family amusement center offers the latest and the largest array of video games and pinball machines including *Seawolf II*, *Skydiver*, in addition to electronic *Football*, *Black Jack*, *Wildfire*, and *Spaceride*.

Each pinball game offers the competitive action of five balls.

Tokens, which are purchased at the door, are used in place of actual

coins. Players can even use the bank charge cards to buy tokens. In addition, gift certificates redeemable in tokens, can be purchased for the holidays.

"We want Scores to be a place where people can spend a couple of hours actively participating in challenging fun. Arcades, as a form of entertainment, are coming out of the Dark Ages. The national manufacturers, such as Atari, Gottlieb and Bally, are contributing to this movement by building new innovative machines. Now we are creating an exciting atmosphere to go along with the machines."



*Fred Rosen's arcade in Dallas, Texas will cater to those who frequent discos, restaurants, and clubs.*

---

## Virginia operators hold quarterly meeting

The Amusement and Music Operators of Virginia (AMOV) held its first quarterly meeting of the new year January 14, 1979, at the Holiday Center in Richmond, Virginia.

An unusually large number of members were in attendance at this meeting where one of the main topics of discussion was the new state laws giving localities the right to impose a local license tax and a gross receipts tax on coin machine opera-

tors.

In addition, new officers and directors were installed for the coming year. They are as follows: C.H. Hudson, president; C. E. Morse, first vice president; M.L. Holland, second vice president; and Lou Corso, secretary-treasurer. New directors for 1979 are Arthur Bazaco, John Cameron, Carl Coleman, Doug Colbert, R.W. Claud, Jim Donnelly, Harry Fake, Lewis Jones, Robert Minor, John Newberry, Ken O'Connor, Arnoff Pantelides, Rich-

ard Peery, Jesse Richardson, William Sams, Claude Smith, and Rex Whitley.

It was also reported the 21st annual convention of AMOV will be held October 4, 5, and 6, 1979, at the John Marshall Hotel in Richmond.

An added highlight to this meeting was the hospitality suite hosted by Empire Coin Machine Company, Inc. on Saturday night before the meeting on Sunday.

# Check out checking with interest

Those whose business is moving money should take a look at "checking accounts that pay interest," says William E. Donoghue, executive director of the Cash Management Institute, Holliston, Massachusetts.

One approach is an ATS plan now being offered by banks. The user establishes both a checking and savings account with the bank. Funds are kept in the savings account and

transferred automatically to the checking account to cover checks as they clear.

But Donoghue prefers the systems offered by money-market mutual funds. Money funds invest in Treasury bills, certificates of deposit, bankers acceptances, and the like. There are no sales charges, no redemption charges, and your money is welcome for as short a period as a week. With money funds the

checks need to be for \$500 or more. These checks are free while banks are charging a service fee for the ATS plans.

The greater advantage of the money funds, however, according to Donoghue, is that money funds gain their users free-market rates while the banks are limited to paying 5 percent. Donoghue, whose Money Fund Report, publishes weekly reports on earnings, notes that money funds are now paying over 8 percent, on an annualized basis.

"That yield," Donoghue explains, "can be increased through controlled disbursement."

"Controlled disbursement" is the cash manager's system of establishing checking accounts in distant cities. The cash manager invests the money while the check is traveling around the country. Many tax payments, to cite Donoghue's favorite example, sometimes take two weeks or more to clear.

A money fund user can duplicate the corporate cash manager's system by using a money fund with a clearing bank in a distant city. One money fund, Capital Preservation Fund, Palo Alto, California, provides users with a choice of clearing banks. The most popular according to James M. Benham, Chairman, of First National Bank, Great Falls, Montana. Capital Preservation's other clearing banks are in Miami, Providence, Rhode Island, and San Francisco.

"By using the system judiciously," explains Benham, "one can take advantage of 'postal float' and increase annual yield by as much as 2 percent."

## Chicofsky resigns MAA post

Ben Chicofsky has resigned as executive director of the Music and Amusement Association, Inc. of New York.


Chicofsky, who has served in that position since 1963, has worked in various aspects of the coin machine business for 22 years. He said that he plans now to produce an international coin machine exhibition in New York City.

One of the individuals responsible for the legalization of pinball games in New York City, he shocked many industry members by his resignation which became effective February 1.

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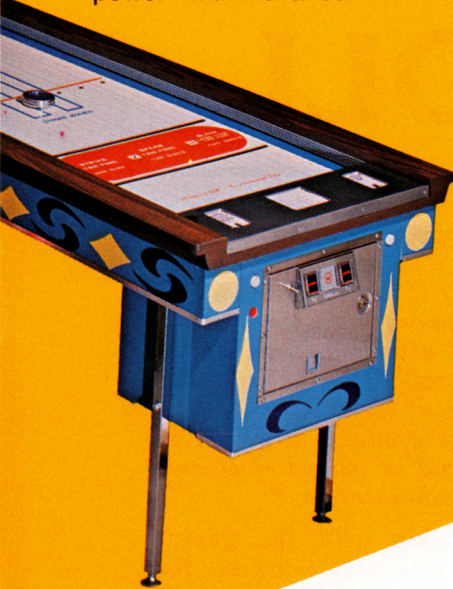
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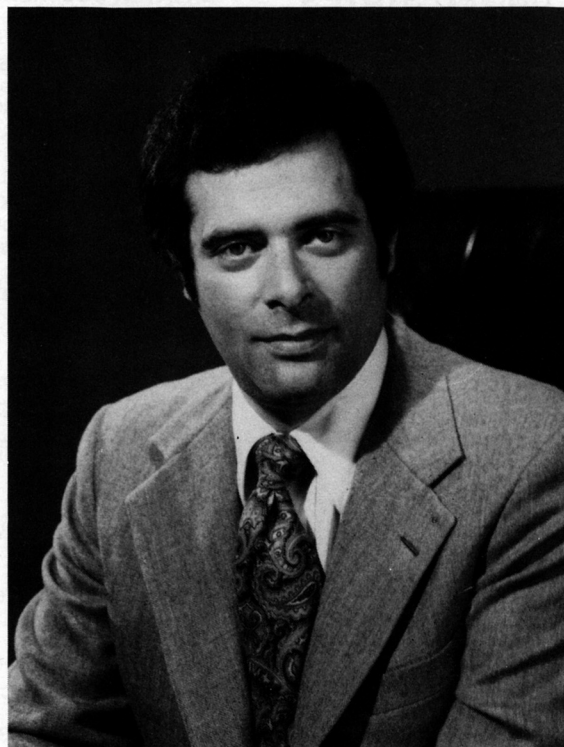


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# Coinman of the Month



## MICHAEL STROLL

---

*With the introduction of solid state technology into the manufacture of pinball machines, there has been a lot of second-guessing, questioning, and doubts. Has the switch to solid state really been worth it? Where are the benefits? The questions are many.*

*To get some answers, we decided to ask someone in this industry who has been through all this before, someone who had experienced the switch-over from electro-mechanical to solid state technology in another field. That man was Michael Stroll.*

*Though he's the president of one of the major U.S. pinball manufacturers, Williams Electronics, his background is more in solid state technology than it is in the games business. He was for a time the microprocessor systems manager for National Semiconductor in Santa Ana, California. Before that he was the director of terminal development for SWEDA International in Morristown, New Jersey.*

*Then he joined Seeburg in October, 1976 as its vice president of corporate technology. His main function was to help develop a solid state system for Williams Electronics pinball games. And toward that goal, he put together an advance development team for the purpose of developing an in-house solid state system. One year and three days after joining Seeburg Corp. he was promoted to the position of president of Williams Electronics, and since that*

*time things have been hopping at the Chicago factory.*

*Stroll told PLAY METER that although his expertise is basically in the microprocessor field, he has always had a personal attachment to pinball machines and games in general. As a student at the University of Hartford and later at Stanford University where he did his graduate work on an honors co-op program, he said he played electronic video games in the college laboratories.*

*His professional relationship with the games industry began when he was still working for National Semiconductor. One of his areas of responsibility was to cultivate new areas for transition to solid state technology. So because of his interest in the games industry he began making presentations to major games manufacturers, among them Williams, Gottlieb, and Midway. That exposure with the industry eventually led to his joining Seeburg in 1976.*

*Stroll is 38 years old. His wife's name is Carol, and they have two children—Elizabeth, 9, and Alison, 7. The Strolls are animal fanciers, and Michael's other interests include travel, basketball, and tennis.*

*But back to the matter at hand. What happened to the solid state reliability? Where is the cost advantage operators were expecting? Stroll's answers certainly deserve a reading.*

**PLAY METER:** You personally have been involved in a lot of public relations work for the industry. You have been interviewed frequently by newspaper and television reporters apparently in an attempt to promote your company's name and the image of pinball in general. Obviously you must place a great deal of importance in the image of this industry.

**STROLL:** Yes, I do. I like the games industry in general to what happened to motorcycles years ago. Back in the mid-50s, the only people who rode motorcycles were people who wore leather jackets and had long hair. So motorcycles had a bad rap. It had nothing to say about motorcycles. The motorcycle didn't care who got on and rode it. Then some people started building motorcycles that were smaller. And soon motorcycle riding was the thing to do. Businessmen were riding them, wives were riding them, everybody. Now nobody thinks that there's a bad image associated with motorcycles. Likewise, I feel that pinball has a great many things that are exciting about it, but the game has gone through a bad rap several different times. If you played a pinball machine, at one time you had a stigma associated with you. But pinball, as we know, is an enjoyment. So today when I go to a shopping mall, it's a pleasure to see arcades that are carpeted, and parents and children in there playing the games. It's important to all of us that we remove the stigma because pinball is not something shady. And that's the whole point I'm trying to make in those interviews, that a pinball is a wholesome thing. It's something that all ages can enjoy. It's important that we start making the public aware of this, and since newspaper and television interviews can give us the necessary exposure, I have taken a personal interest in making sure that I am doing everything possible to keep the image of the Williams pinball machine clean and do whatever I can to keep clean the image of the industry as a whole.

**PLAY METER:** There are, however, still certain taboos associated with pinball. For instance, pinball tournaments are still technically illegal. Free plays and add-a-balls are still not allowed in many areas, and some cities and states overtax the machines. Do you foresee any change in governmental attitudes along these lines?

**STROLL:** Most of the problems associated with pinball in these types of areas are basically the result of people who are looking at pinball machines to determine if there are any unsavory aspects to them. But I think that as long as they continue to give the game an honest look, they will continue to relax their laws. However, if some of the operators take advantage of the relaxed laws and start putting in bingo machines, black jack games, penny pushers, and slot machines, then I think we're going to end up right back in the same situation which we have been working to clear up. And while I feel that there is a place for each and every one of those machines, we ought to make sure that the local laws and ordinances are adhered to, that the laws aren't broken. If we can do that, then I think we can get pinball legalized in the rest of the United

States. My understanding right now is that there is still about thirty percent of the population in this country that can't play pinball machines because of local ordinances.

**PLAY METER:** What do you think is the skill level in pinball?

**STROLL:** I think the skill level in the machines of today is much higher than it has ever been in the past. We like to say that the skill level in pinball is somewhere around 75 percent, but I'm not sure that's true. The skill level may be even higher. When I look at a good pinball player, it occurs to me that the skill level is higher for them than it is for the average person. So I think the skill level may be significantly higher than anyone might imagine. I base this on the belief that the expert player can keep the ball on the playfield longer and thus score a higher score.

**PLAY METER:** Despite the supposed reliability of solid state components, the operators are complaining that the failures with solid state components are almost as frequent as the electro-mechanicals. Additionally, operators pointed out that with solid state, they are experiencing longer downtime. My question to you, therefore, is what happened to the reliability?

**STROLL:** Let me answer that by giving an example of what happened in another industry. I was involved with an electro-mechanical change before—that was with the switch from electro-mechanical cash registers to solid state cash registers. And what I can tell you from that experience is that when you change the ground rules for what is going on, you wind up with a great number of people who don't understand what solid state is all about. They don't understand how to repair it, and so there is a general overall panic that overtakes the industry. This isn't just for the pinball industry. It's sort of a general statement for all industries. What happens is that the people who are familiar with a technology become comfortable with it. With electro-mechanicals, the operator was able to go to the machine and open it up and see what was wrong with it because of his experience level. But with solid state, you can't visually see what's going wrong inside those things unless you have the right equipment. So what happens is that a guy tries to repair a machine without understanding what's really going on. So he has to take either the machine or the board out of the machine and send it back to someone who can repair it. That's why operators are now experiencing more downtime with their machines than what they did with electro-mechanicals. With the electro-mechanicals, the operators could take their soldering irons and fix their machines on the spot. Now the operator can't invest in the equipment, and he has to go back to the distributor. So the distributors are becoming more and more involved in the repair of machines than they ever were before.

**PLAY METER:** What do you feel the manufacturers can do and are doing to help remedy this situation?

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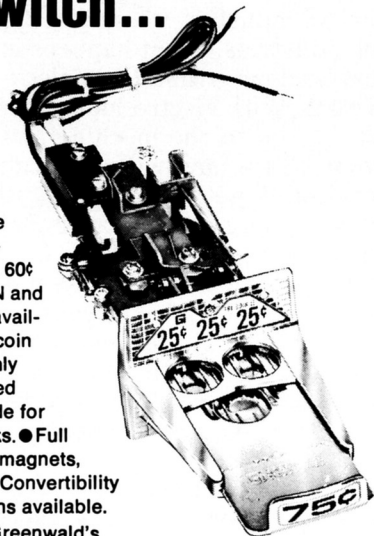
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**STROLL:** The important thing for manufacturers is to make sure that what they ship out of their plants is going to work when it arrives, and that the parts have been tested to get rid of infant mortalities. The manufacturers have to reduce the number of failures in the field. And each of the manufacturers, it appears, has had problems in getting that done. The reason manufacturers have been having their problems in this area is because, like the operators, they are dealing with a new technology. People who have never built a solid state anything before are suddenly building large quantities of these. But from what I've seen in the industry now, and here specifically at Williams, is that the quality of the machines today is significantly higher than the quality of the machines even five months ago. We are going to continue to learn more about solid state as are the distributors and as are the operators. And I envision that 1979 will in general be the year when people throughout the industry will see that maybe we were right when we said solid state would be more reliable. Right now it's still a matter of this industry being in the infancy stages with this new technology. For instance, here at Williams we made the crossover from electro-mechanical to solid state in production on December 5, 1977. That's been only thirteen months; so truly we are still in the beginning stages with this new technology. The same thing is true at Gottlieb, and the same thing is true at Bally. The same thing was true in other industries. If you look at electro-mechanical calculators, for example, they were very reliable except that they broke down now and then. But today with solid state, most people don't have any problems with them, except for replacing the batteries. But in the beginning when we made the switch to the new technology in these calculators, we did have those problems. The same thing was true with switches and cash registers. And with pinball machines, we again have the same problem. There's no question but that given the time it will be shown that the inherent reliability of solid state is significantly higher than electro-mechanical.

**PLAY METER:** There has been, because of the increase in downtime, a growing number of complaints from operators as far as warranty programs. Operators have been blaming this on the distributors who, in turn, have been blaming it on the manufacturers. Where does the responsibility lie, and what is being done to correct it?

**STROLL:** The responsibility of warranties is a joint responsibility of the manufacturers and the distributors. When we first instituted our first warranty program, we put together what I thought was an excellent plan. And it is an excellent warranty program for about 95 percent of the industries in the United States. But it just doesn't work in this one. So we have just changed it. What we were doing was giving six months warranty on all boards. And we were also providing incentive boards for our distributors. But what was happening was that in order to take advantage of that warranty, the distributor had to return the boards to the factory if they were to be repaired at no cost. Well, in this industry, we're not dealing



with a cash register or a calculator; we're dealing with an income-producing piece of equipment. So if a distributor takes a board from an operator and sends it back to the factory for repairs, it takes between eight and ten days before the operator gets it back again. In finally understanding what the mechanism was and what the problems in the industry were, we decided that this type of warranty program just wouldn't work. So we have started doing something that the automobile industry has been doing for years, and that is that we are not guaranteeing all socketed parts on the board for six months. We also have a warranty on the full machine, and we clearly stand behind any manufacturing defects at any time during the first six months. If we screwed up the manufacturing, or let's say there was a problem in the prom, then we stand behind it and send out those parts free of charge to the distributors for the operators. In addition to that, we have now instituted a program that will compensate the distributor for work he does during warranty, and that's a big step. I believe we're the first ones to do that. And, in addition, we're providing incentive boards to the distributors. It depends upon the level of machines the guy buys as to what the incentive program is. So we have taken steps in that direction. We hope that each one of our distributors participates to the spirit of the program. I think the operator today has got to learn to rely more upon his distributor. If an operator is going to start spending money to repair his own boards, I think he's placing his money in the wrong spot. And one of the reasons we've gone through with this new warranty program was to allow the distributor to be in a better position to deal with the operators' problems. If the distributors do this, I think the operators will begin to feel they are being helped. Let me also say this. If this program doesn't work, we'll change it again. After all, this is a fairly closed industry, and if the operators and distributors are unhappy, then the manufacturers have got to be unhappy too. So we'll continue to modify our plans to make sure it happens.

**PLAY METER:** You mentioned a little earlier a comparison between pinball machines and hand calculators as far as the inherent reliability of the solid state system. The usual comparison made with hand calculators is that their prices have gone down. But this has not happened with pinball machines. Why hasn't it?

**STROLL:** When I look at the inflation that is rampant in the country now and see how wages are continuing to go up and the amount of materials are continuing to go up, it's difficult for me to perceive what's going to happen. But I can tell you that all electronic gear has gone down. You have to put it into the context of the percentages of electronics. With a hand calculator, 85 to 90 percent of the calculator is semi-conductor; so if there is a cost reduction in semi-conductor devices, that reduction is clearly passed on to the customers. But with pinball machines, only about thirty percent of the machine's cost to the manufacturer is semi-conductors. The other seventy percent is buried in

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overhead—direct labor, wood parts, electro-mechanical parts, displays (and operators shouldn't confuse the displays on the machines as being semi-conductors because they aren't), glass, things of that nature. So while the semi-conductor content in the machine is remaining stable, the price of wood and all the other ingredients that go into making pinballs are going out of sight. Displays are now costing the manufacturer about forty percent more than they were costing a year ago. With those increases in things apart from electronics, those costs have to be passed on, or else manufacturers won't be able to stay in business.

**PLAY METER:** But where was the cost advantage in making the switch to solid state?

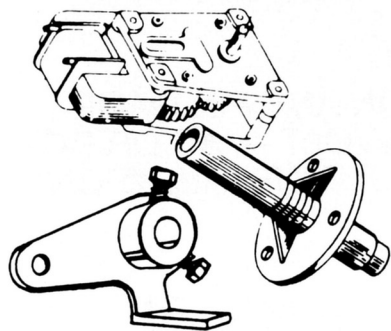
**STROLL:** If we had not made the conversion to solid state, in my opinion, electro-mechanical pins in 1979 would have reached the current price of solid state machines. And that would have been the crossover. The price of electro-mechanical pins would have gone out of sight within the next two years. So I think solid state machines will stabilize the price as long as the economy doesn't continue to be as crazy as it is with this inflation rate. I should add that I don't believe it's true that the mass production of solid state pinballs would drive down the cost of pinballs that much. I spent a lot of time in the semi-conductor industry, and I know basically what the prices are for semi-conductor components. If we were building five times as many machines as we're presently building, then maybe we'd see a four or five percent drop in the cost of the solid state components we buy. But that

wouldn't be that significant a drop because that four or five percent cost reduction would be on just thirty percent of the cost of the machine.

**PLAY METER:** When solid state pins first came out, there was mention that we would start seeing numerous playfield features. We've seen a few—such things as memory. But can we expect to see any more gimmicks and play features on the new solid state machines?

**STROLL:** Absolutely. There are two types of features that solid state pins are affording us. One of these are players' features, and the other is operator features. In *Flash*, for instance, we are introducing a new accounting system in the machine. With *Flash* everything is going to be done from the front of the machine. What we've added to it is that now an operator can find out what the ball time is. Free play percentage data has been built into the machines for some time now, but now the operator wants to refine that even more and find out how long the ball has been on the playfield, and this new feature will tell him that. We tell him the total number of balls that were played and tell him the total number of minutes it took to play those balls. So from that information, the operator can find out if the ball has been on the playfield for 25 seconds, 30 seconds, or longer. And in that way, the operator can better percentage his machine. If the play time is too long, he can make it more conservative. If it's not long enough, then he can make it more liberal. Then, of course, as far as the game's troubleshooting, solid state has provided a very comprehensive diagnostic system which

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allows the operators to isolate what the problems are in the machine. As for the other operator features that solid state has made possible for us, in May or June sometime, we'll have a memory-fail feature that can't possibly lose memory. Now, in terms of what is visible to the player, you mentioned one feature already that solid state has provided, and that is the memory feature. With *Flash*, the player features are more subtle, but the combinations that you're able to do in memory provide these features. As for us, probably the most significant new player feature was our dual-action sound board wherein we built a dual sound system where you could have the traditional pinball sounds or the electronic gurgles and burps. And now, as you know, we're looking into a machine that talks. Those are some of the things we'll be doing. Another thing, in *Flash* we have that big flashing light that flashes at you when you drop the targets. Those are some of the things that are possible with solid state. As for the talking machine, the problem we have now is getting it to the point where the cost on it would be reasonable. We could put it into a machine right now, but if we did, we would have to charge an extra hundred dollars for the game. We don't want to do that. We would like to introduce a talking machine at the same cost as the previous machine, but I don't think it's realizable. I do think there'll be an increase. But we're trying, and we have a very heavy engineering effort going on right now to minimize that cost. With solid state we can also do what has been done with video games, that is, set the level of expertise. The player can set the game to play as an

expert, or as a beginner or at some level in between. And the machine could adjust by changing some of the scoring values. By the way, that's built into the machine right now, but it's built in at the operator's option. It's operator-adjustable as to how he sets the machine, conservative or liberal. So it's entirely possible to put that up front for the players to decide. We're toying with some ideas in that area. So those kinds of player features will evolve. The one thing we don't want to do, however, is build a machine that is so sophisticated that you need a driver's license to play it. We want the public to grow in expertise.

**PLAY METER:** Why did Williams get involved in wide-body pinball games?

**STROLL:** At the 1977 A.M.O.A. Show, I looked at the new equipment very carefully to make sure that Williams was not in a position where it would be caught in a follower's role again. Clearly the entire industry took a second seat to Bally when it made the conversion from electro-mechanical to solid state. So I wanted to make sure that we weren't in a situation where there would be another innovative change, direction, or trend that would cause Williams to suffer some of the problems it suffered in the last half of 1977 because of solid state. And the only thing I saw at the show that I thought might cause us problems was the wide-body pinball game. And it made sense for us to explore it because we were already making pinball machines, the only difference would be the size of the playfield. And, by the way, our venture into the

Continued on page 64

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## New Orleans distributor holds \$10,000 coin-op tournament

They came from all around the New Orleans area, proudly toting their cue stick "shootin' irons" in sleek carrying cases for the big shootout, the fourth annual Greater New Orleans Coin-Operated 8-Ball Pool Tournament.

The 95 men and one woman who participated in the grand shootout had already proved their pocket billiard prowess by qualifying from among a record-breaking number of almost 4,500 entrants.

The tryouts were held for nine consecutive weeks in each of 32 co-sponsoring business establishments in the Metro New Orleans area.

Each location sent one finalist in each of the Class A, B, and C Divisions who were to shoot against other location winners to capture a share of the \$2,400 cash pot and trophies.

With several hundred often emotional spectators looking on, the eight-hour drama began to unfold.

The top winner was J.E. "Big Ed" Collins who claimed the Class A Division championship and a \$500 check. The trophy for this honor went to his qualifying location and to its owner.

The event took place on November 26, 1978 in the local Marriott Hotel where it has been held since the initial 1975 tourney.

The playoff "arena" was the hotel's Mardi Gras Ballroom which took on the appearance of a classic billiard emporium of the early 1900s. Surrounded by antique wall decor, a dozen coin-op pool tables set comfortably on a wall-to-wall Persian rug, which allowed perfect table level for excellent ball roll. Huge classic chandeliers backed up light from platinum-colored lamps hung over each table from a high ceiling by chain-covered electric cords.

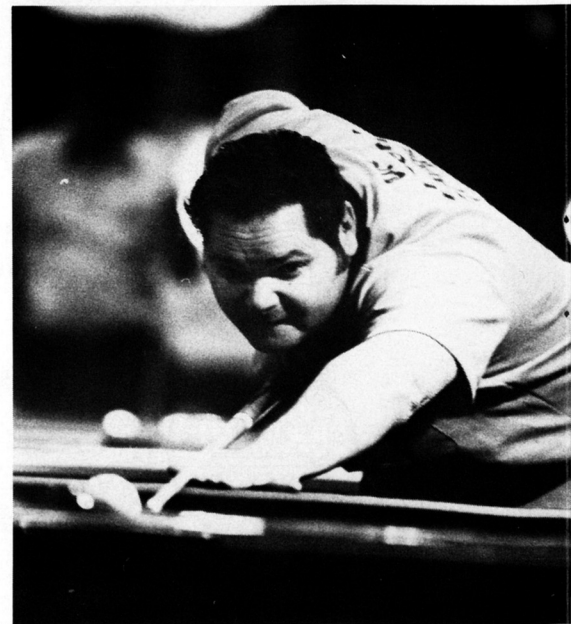
The host was Bob Nims, tournament director and chief executive officer of A.M.A. Distributors, Inc. and Lucky Coin Machine Company,

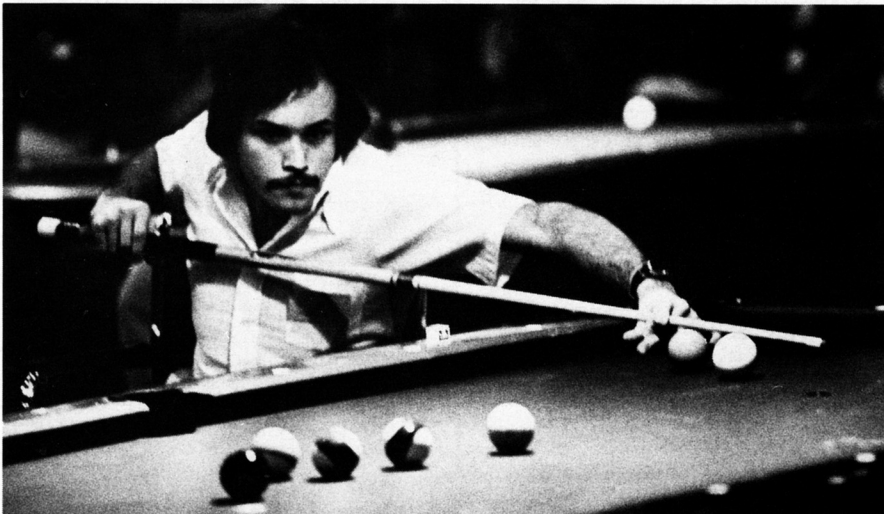
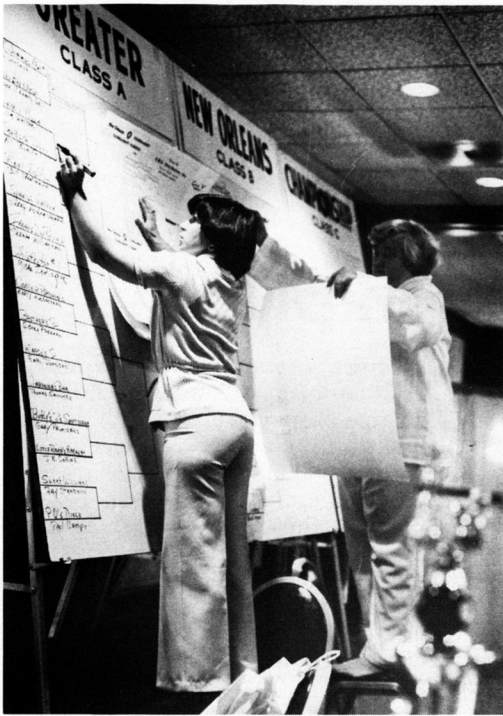


Inc., a local coin-op music and amusement equipment firm which, respectively, have directed and sponsored the event since its inception. Nims recently was elected first vice-president for the 1979 term of the Amusement and Music Operators Association (AMOA).

The official presenter of cash prizes and trophies to each class champion and first runner-up and to their qualifying locations was Buddy Diliberto, a local television station's sports director.

Additional winners and runners-up were: Class A—second place, Bill Trentecosta, \$250 and trophy to his qualifying location; third and fourth places, Wayne Gonzales and Thomas Sanchez, each \$100; fifth through eighth places, Al Bonife (1977 Class A champion), Mike Dominique, Paul Campo, and Marty Huebschman, each \$50.





*The Mardi Gras Ballroom of the New Orleans Marriott Hotel was the scene for the pool tournament finals. The chore of updating the tournament's large scoreboard was handled by A.M.A. distributing personnel. Spectators and players alike were pictures of concentration during the competition.*

Class B—first place, Wardell Raymond (1975 Class A champion), \$300 and trophy to his qualifying location; second place, Harold Lyons, \$150 and trophy to his location; third and fourth places, Wayne Norris, and Lyle Ganucheaux, each \$75; fifth through eighth places, David Duffy (1976 Class B champion), Bill Ballinger, Ed Mathews, and David Hooper, each \$37.50.

Class C—first place, Joseph Edwards, \$200 and trophy to his qualifying location; second place, Tom Cole, \$100 and a trophy to the location; third and fourth places, Terry Schulz, and Gerald Seau, each \$50; fifth through eighth places, Michael Fleming, Ray Williams, Doug Winslow, and "Butch" Gallagher, each \$25.

Although there were a record number of women who entered the

qualifying rounds, only one woman, Pauline Thibodeaux, was able to make the playoffs. She competed in the Class C matches and was eliminated in the first round.

"The ladies are picking up rapidly on pool here in our area," Nims said. "Next year we will probably include for the first time in our tourney a women's division, to assure the ladies good representation in the playoffs."

Each co-sponsoring location held one qualifying round weekly for eight weeks to get an equal number of winners. Each winner received a professional "Shark" two-piece cue stick with a black leatherette carrying case.

During the ninth week, each location's weekly winners competed in a double elimination final round. First place winner became eligible to enter the playoffs in Class A Division;

second place in Class B, and third in Class C. They also received trophies and certificates to enter the playoffs from the location where they qualified.

The overall tourney awarded 382 cash, merchandise, and trophy prizes worth a total of over \$10,000. "This large number of prizes helped spur the competitive spirit of players and gave each contestant a chance to win something although not making the playoffs," Nims pointed out. "For this reason and others, such as helping locations boost their overall profits and bolstering customer relations, the tourney continues to be a success," he added.

Since it began, the Greater New Orleans 8-Ball tourney has been sanctioned by U.S. Billiards, Inc. of Amityville, New York, international maker of coin-op pool tables and other amusement games.



## Gottlieb lines up supplemental distribution plan

A supplemental distribution plan for Texas which involves the addition of two distributors in major market areas of the state has been announced by D. Gottlieb and Company.

"In addition to Abe Susman's State Music, our long standing distributor in the state who has done an outstanding job for us over the years, we are also adding Peterson Coin Machine Distributing Company in Houston and Allcoin Equipment

Company of San Antonio as Gottlieb Distributors," said Tom Herrick, Gottlieb's marketing director, in detailing the plan.

"We are extremely gratified to have these fine distributing companies join our ranks," he continued. "Dan Perrotta and Malcolm Gildart of Allcoin have been well known to us for years through their efficient coverage of their trading area in the southern part of the state. Dick

Peterson's young and aggressive distributorship is a perfect choice in an area of spectacular growth such as Houston. He has a wealth of background in the coin machine field and well established roots in Texas.

"Both these fine companies have the kind of service organizations that are so helpful and necessary to games operators in the age of electronics," he concluded, "and we welcome them with great enthusiasm."

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### Favorable response for blackjack game

Forbes Enterprises of North Billerica, Massachusetts introduced its two player bar top sized blackjack game at this year's A.M.O.A. show.

According to Forbes Vice President John Walsh initial response from operators in Chicago and the northeast are quite favorable.

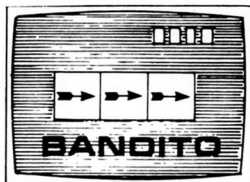
The game is about the size of a typewriter and can go in locations more easily than most other games.

Walsh said that the operator will not have to take the game off location if something goes wrong. All the electronic components are mounted on one P. C. Board which is easily interchanged.

### Secore expires

Morton J. Secore, a long time veteran of the coin machine industry having worked in the coin machine division of Chicago Dynamic Industries, and most recently involved in Bally's marketing division since 1971, died December 27, following a lengthy illness.

Services were held Friday, December 29, at Piser's in Skokie, Illinois with burial at Memorial Park. He is survived by his wife Shirley and one child.



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## Bally regionalizes service schools

In the past Bally Manufacturing held its major factory schools in Chicago. But this year the company is regionalizing its schools to cover more areas.

So, in addition to a February 12-16 service school in Chicago, Bally will sponsor a school March 5-9 at the Holiday Inn in Reno, Nevada and another school April 2-6 at the Sheraton Center in Charlotte, North Carolina.

The schools are five day seminars (classes begin at 9 a.m. on the first day and end at 2 p.m. on the fifth day) and include three days devoted to Bally flippers and two days devoted to Midway's arcade games. The curriculum ranges from lectures to hands-on troubleshooting of the electronic games.

There is no charge for the school; however, enrollment is limited to those who have made prior reservations through Bally. To make school and hotel reservations, an operator should call 1-800-621-0108.

No special tools or equipment is required. All equipment, etc. will be provided at the school. For the operator, his only expenses are hotel and transportation.

## Omaha Open scheduled

The Omaha \$10,000 Open is the next stop of Tournament Soccer's 1979 million-dollar tour.

Scheduled for February 23-25 at the Omaha Hilton in Omaha, Nebraska, the event will feature nine different areas of competition with the premier event at the tournament being the open doubles competition. The first place team in that bracket will win \$1000. Other events at the Omaha Open include, the open singles event, novice mixed doubles, novice open, novice singles, women's doubles, goalie war, and draw-your-partner tournaments on the first and second days of the event.

Other Tournament Soccer events scheduled for this year include the St. Louis \$10,000 Masters Invitational Individual Championships (March 2-4) and the Cincinnati \$50,000 Super Singles II (March 9-11) which is slated for the Drawbridge Inn in Fort Mitchell, Kentucky.



The new one-dollar-coin is set for release in July, 1979.

## Standard Change-Makers anticipates dollar coin

In anticipation of the release of the new one-dollar coin by the U.S. Mint in July of this year, Standard Change-Makers, Inc. of Indianapolis has announced that it already has available bill/coin changers that can be adapted to accept the new coin as soon as it goes into use, and that it will also have conversion kits for existing Standard Bill/Coin Changers and new changers for the one-dollar coin itself and five-dollar changers that return the one-dollar coin.

According to John S. Dugan, Standard's national sales manager, any Series 6802, 3002B, or 6502B bill/coin changer sold now can be modified later to handle the new one-dollar coin.

According to Dugan, too, possibly by as early as June, conversion kits,

including actuator panels and power box, will be available for almost all existing Series 76, 7503, 7303, 6802B, 3002B and 6502B Bill/Coin Changers. The kits will be designed for installation by the owner.

At the same time the new coin is released, Standard Change-Makers is planning to introduce two new changers: one to change the one-dollar coin itself and another to change a five-dollar bill and return 5 one-dollar coins or four one-dollar coins and four quarters or other small change combinations.

"The new one-dollar coin will offer the owners of coin-operated machines a whole new range of sales potential," Dugan said, "and Standard Change-Makers plans to be well ahead of the game in adapting its change-making equipment to the new opportunities."

## Complimentary badges-- a problem

The AMOA has recommended that distributors discontinue the practice of ordering distributor badges for their operator friends who attend the annual AMOA exposition in Chicago each year.

This recommendation comes on the heels of one exhibitor's comments to the AMOA concerning this past year's show. Wrote the exhibitor: "Distributors who bring operators in on their company lapel card make a big mistake and ask for the problems that surface, i.e. the

operator comes to a manufacturer's booth representing himself as a distributor. He asks questions about products, frequently including price. The manufacturer's personnel cannot be held responsible for the unhappy results."

The AMOA in its attachment to the exhibitor's comments, said "Not only is this [supplying operators with distributors' badges] a bad practice for the reason stated, but it also makes for an inaccurate registration list."

# Sick pay exclusion-- what it means

**QUESTION:** What does the "sick pay exclusion" mean?

**ANSWER:** In 1976, the tax law formerly allowing a "sick pay exclusion" for payments received by an employee while injured or ill, and unable to work, was changed significantly. Further changes occurred in 1977 and 1978. The "sick pay exclusion" was repealed and replaced by what is frequently termed as the "disability income exclusion."

The "disability income exclusion" allows a maximum annual exclusion of up to \$5,200.00 to individuals who meet certain criteria. However, maximum exclusion is reduced dollar for dollar by adjusted gross income of the taxpayer, including income of his or her spouse if married, above \$15,000. Adjusted gross income must include the disability income; accordingly, if you receive \$200 in disability income and \$15,000 of other income, you will not be entitled to any exclusion.

In order to claim the exclusion, you must not have reached the age of 65 by the end of the taxable year,

nor have reached the mandatory retirement age designated by your employer. More importantly, you must be permanently and totally disabled at the time your employment terminates. An individual is considered permanently and totally disabled if he is unable to engage in any substantial gainful activity by reason of physical or mental impairment.

To claim the "disability income exclusion," you must attach IRS Form 2440 or a statement to your return showing the date of retirement, name of your employer, payor of the exclusion, and your computation of the amount of the exclusion.

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*The all-important digital scoring displays—where all eyes focus as bonus points ring up—are tested for accuracy by a Williams Electronics, Inc. technician at the firm's Chicago factory, one facet of Williams' efforts to ensure quality production.*

## Calendar

**March 9-10**

AMOA-Notre Dame Business Seminar, O'Hare Hilton Hotel, Chicago, Illinois

**March 30-April 1**

Florida Amusement Merchandising Association, annual convention and trade show, Marriott, Orlando, Florida

**April 6-8**

Western Convention, Exhibit of Vending and Foodservice Management, Brooks Hall, San Francisco, California

**May 11-12**

Ohio Music and Amusement Association, annual convention and trade show, Columbus Hilton Inn, Columbus, Ohio

**June 7-9**

Music Operators of Texas, annual convention, Marriott Hotel, Austin, Texas

## Atari shakeup

Warner Communications Inc. has announced that Raymond E. Kassar has been named president and chief executive officer of Atari. It was also announced that Joseph F. Kennan has been named chairman of the board.

Nolan Bushnell, formerly chairman of the board, will reportedly continue to serve Atari in the development of coin-operated games. In addition, he will devote more time to his personal affairs, investments, and other interests including politics.

## Bonilla promoted

Marcio Bonilla has been named Tournament Soccer's national sales manager, following the recent departure of Jack O'Brien from that position.

Bonilla, a long-time veteran of the Tournament Soccer organization, is well-known to distributors and to the players of the game.

A native of Costa Rica, Bonilla is experienced in all phases of the Tournament Soccer operation, including sales as well as professional play demonstrations.

# Williams and Stern (the men, not the companies) join forces

January, 1979 marked a new beginning in a very special way at Stern Electronics.

Stern reunited one of the most successful teams in coin machine history. Harry Williams—founder of Williams Electronics—and Sam Stern—past president of Williams and Seeburg Corp., past executive vice president of Bally, and presently executive vice president of Stern—will be the one-two combination in the design of future coin games from Stern.

Both men are giants in the annals of pinball machine history. Stern began his career in 1931, first as an operator and later as a distributor of pinball machines.

Williams started his career in the coin machine industry in 1929. After years of experience, Lyn Durant and Williams founded United Manufacturing Company in 1941. In 1943 he left United and started Williams Manufacturing Company.

Sam Stern joined Williams as a partner in 1946. Stern bought out Williams in 1959 and took control of the company until he sold it to Seeburg Industries in 1964. Seeburg changed the name to Williams Electronics, and Sam Stern remained on as president until 1969. After serving for one year as executive vice president for Bally, he returned to Seeburg as president where he served until joining his son Gary to help form Stern Electronics in December, 1976.

Sam Stern devised one of the most popular targets found on pinball games today in the early 1960s when he invented the drop target. At that time, he was looking for a new gadget to include on the games from Williams and developed the drop target as a target that would "...drop one hit, and then jump up." The drop target was initially featured on *Vagabond* from Williams in 1962. But it was only a single target. A drop target bank, very popular on pin-games today, was not implemented until 1971 by D. Gottlieb & Company.

Sam Stern made another significant contribution to today's pinball games. While at Williams in the 1950s, he had developed a machine with standard flippers. When the machine was nearly complete, "... (we found) the stretch rubber was too long; so I said, let's put a long flipper there, and we did." From that point



Harry Williams



Sam Stern

on long flippers became the standard for the industry.

Harry Williams developed the "tilt" feature found on every machine produced today. The device that he developed was simple and effective against players trying to garner extra points through extra abuse. When a player kicked, picked up, or in any other way mishandled the machine, a ball fell off a pedestal and the game ended. Williams installed the device in several of his advance machines that were out at various locations. He really didn't like the name, stool pigeon, and upon hearing a frustrated player say "Damn I tilted it!" discovered the word that has brought

millions of groans from disappointed players. A year after he developed the pedestal tilt, he developed the pendulum tilt.

In 1933, Harry Williams was the first to put electricity in pinball. That, however, is only part of the story. Using three batteries for power, Williams developed a contact hole, the direct predecessor of the kick-out hole. When the ball came in contact with the hole, a solenoid-powered kicker shot the ball out. When Williams also attached a doorbell chime to the hole, *Contact* became the first machine in history to have electricity involved in its operation and also the first to have sound.

During their years of association at Williams Manufacturing, Harry Williams and Sam Stern produced machines that have become classics in pinball machine history. *Gismo*, *Freshie*, *Hayburner*, *Starlite*, *Snafu*, *Screamo*, and *Clubhouse* are just a sampling of the machines created while Stern and Williams were united at Williams.

These two men have nearly 100 years of experience in the coin machine industry between them.

Sam Stern feels that the industry-wide switch from an electro-mechanical to a solid state machine is a great development for the coin machine business. He feels that many new features not possible in electro-mechanical days, will become a reality in the next few years. Both men feel that the solid state machines are more reliable, and this will be proved as time goes on.

Harry Williams will continue to live in Palm Springs, California and will travel to Stern Electronics offices and factory several times a year to bring new and innovative game designs. Sam Stern who resides in Chicago, will implement these ideas at Stern.

Stern and Williams will have another major duty in addition to designing new games for Stern. They will also work with new designers, giving them the benefit of their experience to teach game design and play appeal.

Stern's president, Gary Stern, said of the new arrangement, "We are very pleased with the addition of Harry Williams to the Stern Team. With the help of Harry Williams and my father, Sam Stern, we hope to establish and maintain industry leadership in the design of coin machines."

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# Play Meter Pop Singles Chart

Feb. 10	TITLE, ARTIST, Label, Record Number	Jan. 27	Weeks on Chart		
• 1	LE FREAK - CHIC - ATLANTIC 3519		1	14	
• 2	Y.M.C.A. - THE VILLAGE PEOPLE - CASABLANCA 945		4	15	
• 3	A LITTLE MORE HEAVEN - OLIVIA NEWTON - JOHN - MCA 40975		7	10	
4	TOO MUCH HEAVEN - THE BEE GEES - RSO 913		3	10	
5	OOH BABY BABY - LINDA RONSTADT - ASYLUM 45546		8	12	
6	HOLD THE LINE - TOTO - COLUMBIA 10830		12	13	
• 7	BABY I'M BURNING - DOLLY PARTON - RCA - 11420		17	10	
• 8	SEPTEMBER - EARTH WIND & FIRE - ARC 10854(COLUMBIA)		18	10	
9	MY LIFE - BILLY JOEL - COLUMBIA 10853		2	12	
10	WE'VE GOT TONIGHT - BOB SEGER - CAPITOL 4653		11	13	
• 11	EVERY 1'S A WINNER - HOT CHOCOLATE - INFINITY 50002(MCA)		23	10	
• 12	LOTTA LOVE - NICOLETTE LARSON - WARNER BROTHERS 8664		24	8	
• 13	FIRE - THE POINTER SISTERS - PLANET 45901(ELEKTRA)		25	8	
14	PROMISES - ERIC CLAPTON - RSO 910		16	16	
15	THE GAMBLER - KENNY ROGERS - UNITED ARTISTS 1250		22	10	
• 16	SHAKE IT - IAN MATTHEWS - MUSHROOM 7039		28	7	
17	I LOVE THE NIGHT LIFE - ALICIA BRIDGES - POLYDOR 14483		5	31	
18	I'M EVERY WOMAN - CHAKA KHAN - TATTOO 8683(W.B.)		19	18	
19	INSTANT REPLAY - DAN HARTMAN - BLUE SKY 2772(CBS)		20	17	
• 20	HOME & DRY - GERRY RAFFERTY - UNITED ARTISTS 1266		32	7	
• 21	SHATTERED - ROLLING STONES - ROLLING STONE 14310 (ATLANTIC)		33	7	
• 22	LOVE DON'T LIVE HERE ANYMORE - ROSE ROYCE - WHITFIELD 8712 (W.B.)		34	7	
23	SHARING THE NIGHT TOGETHER - DR. HOOK - CAPITOL 4621		13	21	
24	YOU DON'T BRING ME FLOWERS - BARBRA & NEIL - COLUMBIA 10840		6	15	
• 25	DA YA THINK I'M SEXY - ROD STEWART - WARNER BROTHERS 8724		40	5	
• 26	SOMEWHERE IN THE NIGHT - BARRY MANILOW - ARISTA 0382		41	5	
27	NEW YORK GROOVE - ACE FREHLEY - CASABLANCA 941		35	7	
28	MAC ARTHUR PARK - DONNA SUMMER - CASABLANCA 939		9	23	
29	YOU THRILL ME - EXILE - WARNER BROS./CURB 8711		31	8	
• 30	SHAKE YOUR GROOVE THING - PEACHES & HERB - POLYDOR 14514		48	5	
• 31	SOUL MAN - THE BLUES BROTHERS - ATLANTIC 36122		49	5	
• 32	I WAS MADE FOR DANCIN' - LEIF GARRETT - SCOTTI BROS. 403(ATLANVIC)		42	8	
• 33	DON'T CRY OUT LOUD - MELISSA MANCHESTER - ARISTA 0373		43	7	
34	SWEET LIFE - PAUL DAVIS - BANG 738		26	24	
• 35	BLUE MORNING, BLUE DAY - FOREIGNER - ATLANTIC 3543		51	5	
• 36	I DON'T KNOW IF IT'S RIGHT - EVELYN 'CHAMPAGNE' KING - RCA 11386		53	5	
37	HOW YOU GONNA SEE ME NOW - ALICE COOPER - WARNER BROTHERS 8695		15	16	
38	I JUST WANNA STOP - GINO VANELLI - A & M 2072				36 22
• 39	HEAVEN KNOWS - DONNA SUMMER - CASABLANCA 959				59 3
• 40	NO TELL LOVER - CHICAGO - COLUMBIA 10879				58 5
• 41	DON'T HOLD BACK - CHANSON - ARIOLA 7717				55 8
42	ONE LAST KISS - J. GEILS - EMI/AMERICAN 8964				47 8
43	PART TIME LOVE - ELTON JOHN - MCA 40973				14 12
• 44	DANCING SHOES - NIGEL OLSSON - BANG 738				65 5
45	[OUR LOVE] DON'T THROW IT ALL AWAY - ANDY GIBB - RSO 911				10 17
46	THE POWER OF GOLD - FOGELBERG & WEISSBERG - FULL MOON 50606(CBS)				21 17
• 47	GOT TO BE REAL - CHERYL LYNN - COLUMBIA 10808				70 3
• 48	GET DOWN - GENE CHANDLER - 20TH CENTURY 2386(RCA)				72 3
• 49	I WILL SURVIVE - GLORIA GAYNOR - POLYDOR 14508				73 3
• 50	I GO TO RIO - PABLO CRUISE - A & M 2112				74 3
51	A MAN I'LL NEVER BE - BOSTON - EPIC 50683				52 8
52	EASY DRIVER - KENNY LOGGINS - COLUMBIA 10866				56 7
53	RADIOACTIVE - GENE SIMMONS - CASABLANCA 851				60 5
• 54	THE FOOTBALL CARD - GLENN SUTTON - MERCURY - 55052				71 3
• 55	I DON'T WANNA LOSE YOU - HALL & OATES - RCA 11424				69 5
56	YOU NEED A WOMAN - THE CAPTAIN & TENNILLE - A & M 2016				63 5
57	THIS MOMENT IN TIME - ENGLEBERT HUMPERDINCK - EPIC 50632				64 5
58	DANCING SHOES - THE FAITH BAND - VILLAGE/MERCURY 74037				66 5
59	TAKE ME TO THE RIVER - THE TALKING HEADS - SIRE 1032 (W.B.)				67 5
• 60	EVERYTIME I THINK OF YOU - THE BABYS - CHRYSALIS 2279				75 3
61	SILVER LINING - PLAYER - RSO 914				68 5
• 62	WHAT A FOOL BELIEVES - THE DOOBIE BROS. - WARNER BROS. 8725				- 1
• 63	I JUST FALL IN LOVE AGAIN - ANNE MURRAY - CAPITOL 4675				- 1
• 64	FOREVER IN BLUE JEANS - NEIL DIAMOND - COLUMBIA 10887				- 1
• 65	EVERY WHICH WAY BUT LOOSE - EDDIE RABBITT - ELEKTRA 45554				- 1
• 66	CONTACT - EDWIN STARR - 20TH CENTURY 2396(RCA)				- 1
• 67	LADY - LITTLE RIVER BAND - CAPITOL 4667				- 1
• 68	CHASE - GIORGIO MORODER - CASABLANCA 956				- 1
• 69	SONG ON THE RADIO - AL STEWART - ARISTA 0389				- 1
70	KNOCK ON WOOD - AMII STEWART - ARIOLA 7736				- 1
71	SING FOR THE DAY - STYX - A & M 2110				- 1
72	WHAT YOU WON'T DO FOR LOVE - BOBBY CLADWELL - CLOUDS 11 (TK)				- 1
73	YOU STEPPED INTO MY LIFE - MELBA MOORE - EPIC 50600				- 1
74	GOODBYE, I LOVE YOU - FIREFALL - ATLANTIC 3544				- 1
75	HAVEN'T STOPPED DANCIN' - GONZALEZ - CAPITOL 4647				- 1

# Play Meter R&B Singles Chart

Feb. 10	TITLE, ARTIST, Label, Record Number	Jan. 27	Weeks on Chart		
1	LE FREAK - CHIC - ATLANTIC 3519		1	16	
2	GOT TO BE REAL - CHERYL LYNN - COLUMBIA 10808		2	20	
3	I LOVE THE NIGHT LIFE [DISCO ROUND] - ALICIA BRIDGES - POLYDOR 14483		3	20	
• 4	DON'T HOLD BACK - CHANSON - ARIOLA 7717		5	18	
• 5	I DON'T KNOW IF IT'S RIGHT - EVELYN 'CHAMPAGNE' KING - RCA 11386		7	16	
• 6	TAKE THAT TO THE BANK - SHALAMAR - SOLAR 11379 (RCA)		8	16	
• 7	SEPTEMBER - EARTH, WIND & FIRE - ARC 10854 (Columbia)		9	10	
• 8	SHAKE YOUR GROOVE THING - PEACHES & HERB - POLYDOR 14514		11	13	
• 9	Y.M.C.A. - THE VILLAGE PEOPLE - CASABLANCA 945		12	12	
• 10	EVERY 1'S A WINNER - HOT CHOCOLATE - INFINITY 50002 (MCA)		15	10	
• 11	GET DOWN - GENE CHANDLER - 20TH CENTURY 2386 (RCA)		16	13	
12	INSTANT REPLAY - DAN HARTMAN - BLUE SKY 2772 (CBS)		13	12	
• 13	FIRE - THE POINTER SISTERS - PLANET 45901 (ELEKTRA)		21	11	
• 14	YOU STEPPED INTO MY LIFE - MELBA MOORE - EPIC 50600		22	15	
• 15	CONTACT - EDWIN STARR - 20TH CENTURY 2396 (RCA)		26	5	
• 16	YOU MAKE ME FEEL [MIGHTY REAL] - SYLVESTER - FANTASY 846		27	5	
17	LOVE DON'T LIVE HERE ANYMORE - ROSE ROYCE - WHITFIELD 8712 (W.B.)		20	12	
18	LONG STROKE - ADC BAND - COTILLION 44243 (ATLANTIC)		19	15	
19	I'M EVERY WOMAN - CHAKA KHAN - TATTOO 8683 (W.B.)		4		
20	MARY JANE - RICK JAMES - GORDY 7162 (MOTOWN)		6	18	
• 21	I'M SO INTO YOU - PEABO BRYSON - CAPITOL 4656		35	7	
• 22	WHAT YOU WON'T DO FOR LOVE - BOBBY CALDWELL - CLOUDS 11 (TK)		39	8	
23	IN THE BUSH - MUSIQUE - PRELUDE 71110		14	18	
24	GET OFF - FOXY - DASH 5046 (TK)		24	32	
25	LOVE VIBRATIONS - JOE SIMON - SPRING 190 (POLYDOR)		33	8	
• 26	AQUA BOOGIE - THE PARLIAMENTS - CASABLANCA 950		38	5	
27	MAC ARTHUR PARK - DONNA SUMMER - CASABLANCA 939		10	23	
28	I JUST WANNA STOP - GINO VANELLI - A & M 2072		17	20	
29	DANCE [DISCO HEAT] - SYLVESTER - FANTASY 827		18	30	
30	HOLY GHOST - THE BAR KAYS - STAX 3216 (FANTASY)		36	7	
• 31	BUSTIN' LOOSE - CHUCK BROWN & THE SOUL SEARCHERS - SOURCE 40967 (MCA)		50	5	
32	THERE'LL NEVER BE - SWITCH - GORDY 7159 (MOTOWN)		23	26	
• 33	I WILL SURVIVE - GLORIA GAYNOR - POLYDOR 14508		63	3	
• 34	SOMEWHERE IN MY LIFETIME - PHYLISS HYMAN - ARISTA 0380		51	5	
• 35	HEAVEN KNOWS - DONNA SUMMER - CASABLANCA 959		61	3	
• 36	LIFE IS A SONG - TEDDY PENDERGRASS - PHILA. INT'L. 3669 (CBS)		62	3	
37	UNLOCK YOUR MIND - THE STAPLES - WARNER BROS. 8669		25	20	
38	ONE NATION UNDER A GROOVE - FUNKADELIC - WARNER BROS. 8618				31 25
39	MIDNIGHT GIRL - LENNY WILLIAMS - ABC 12423				42 13
40	NEVER HAD A LOVE - TAVARES - CAPITOL - 4658				46 8
• 41	YOU CAN DO IT - DOBIE GRAY - INFINITY 50003 (MCA)				68 3
• 42	SHOOT ME WITH YOUR LOVE - TASHA THOMAS - ATLANTIC 3542				60 5
43	YOUR SWEETNESS IS MY WEAKNESS - BARRY WHITE - 20TH CENTURY 2380 (RCA)				28 21
44	JUST FREAK - SLAVE - COTILLION 44242 (ATLANTIC)				48 10
45	GIVING UP - THE THREE DEGREES - ARIOLA 7721				49 8
46	ZEKE THE FREAK - ISSAC HAYES - POLYDOR 14521				52 5
47	FREE ME - BONNIE POINTER - MOTOWN 1451				55 8
48	IS IT STILL GOOD TO YA - ASHFORD & SIMPSON - WARNER BROS. 8710				56 7
49	LOOSE CABOOSE - JOE TEX - DIAL 2800 (TK)				57 5
50	NOW THAT WE FOUND LOVE - THIRD WORLD - ISLAND 8663 (W.B.)				58 5
51	IT'S ALL THE WAY LIVE - LAKESIDE - SOLAR 11380 (RCA)				59 5
52	TIME SLIPS AWAY - THE OHIO PLAYERS - MERCURY 74031				54 8
• 53	JUST THE WAY YOU ARE - BARRY WHITE - 20TH CENTURY 2395 (RCA)				- 1
• 54	SHAKE YOUR BODY - THE JACKSONS - EPIC 50656				- 1
• 55	LIVIN' IT UP - BELL & JAMES - A&M 2069				- 1
• 56	OH HONEY - DELEGATION - SHADYBROOK 1048				- 1
• 57	DANCIN' - GREG & HANKS - RCA 11460				- 1
• 58	HAVEN'T STOPPED DANCIN' - GONZALEZ - CAPITOL 4647				- 1
• 59	KNOCK ON WOOD - AMII STEWART - ARIOLA 7736				- 1
• 60	DA YA THINK I'M SEXY - ROD STEWART - WARNER BROTHERS 8729				- 1
61	DIG A LITTLE DEEPER - LATIMORE - GLADES 1750 (TK)				66 7
62	INSANE - CAMEO - CHOCOLATE CITY 016 (CASABLANCA)				67 5
63	TOO LATE - MANDRILL - ARISTA 0375				69 3
64	LOVE CHANGES - MOTHER FINEST - EPIC 50641				70 3
65	TO SIR WITH LOVE - AL GREEN - HI 78522				71 3
66	EVER READY LOVE - THE TEMPTATIONS - ATLANTIC 3538				72 3
67	I'LL DANCE - THE BAR KAYS - MERCURY 74039				73 3
68	LOVE IS HERE - RONNIE LAWS - UNITED ARTISTS 1264				74 3
69	CRY TOGETHER - THE O'JAYS - PHILA. INT'L. 3666 (CBS)				75 3
70	I GOT MY MIND MADE UP - INSTANT FUNK - SALSOL 2078 (RCA)				- 1
71	KEEP ON DANCIN' - GARY'S GANG - SAM 10884 (CBS)				- 1
72	I WANNA BE CLOSE - SWITCH - GORDY 7163 (MOTOWN)				- 1
73	CHASE - GIORGIO MORODER - CASABLANCA 956				- 1
74	KEEP ON JUMPIN' - MUSIQUE - PRELUDE 71114				- 1
75	WHAT'S YOUR SIGN GIRL - DANNY PEARSON - UNLIMITED GOLD 1400 (CBS)				- 1



**"Pops, We Love You"** M-1455F  
Diana Ross, Marvin Gaye,  
Smokey Robinson & Stevie  
Wonder



**"I Wanna Be Closer"** G-7163F  
From the smash debut album  
"Switch" G7-980R1



**"Free Me From My  
Freedom"** M-1451F  
From her debut solo album  
"Bonnie Pointer" M7-911R1



**"What You Gave Me"** M-1456F  
Diana Ross  
From "Ross" M7-907R1



**"High On Your Love Suite"**  
G-7164F  
Rick James  
From his just released new  
album "Bustin' Out Of L Seven"  
G7-984R1



**"A Funky Space  
Reincarnation"** T-54298F  
Marvin Gaye  
From the all new two-record set  
"Here, My Dear" T-364LP2



**"Saturday Night, Sunday  
Morning"** T-54297F  
Thelma Houston  
From "Ready To Roll" T7-361R1



**"Do Dat"** M-1454F  
Grover Washington, Jr.  
From the album "Reed Seed"  
M7-910R1

# THE MAGIC OF MOTOWN!



# Play Meter Country Singles Chart

TITLE, ARTIST, Label, Record Number		Jan. 27	Weeks on Chart		
Feb. 10					
1	I REALLY GOT THE FEELING - DOLLY PARTON - RCA 11420		1		
2	THE GAMBLER - KENNY ROGERS - UNITED ARTISTS 1250	2	15		
• 3	WHY HAVE YOU LEFT THE ONE YOU LEFT ME FOR - CRYSTAL GAYLE - U.A. 1259	13	8		
4	TULSA TIME - DON WILLIAMS - ABC 12425	5	13		
5	SHARING THE NIGHT TOGETHER - DR. HOOK - CAPITOL 4621	9	18		
6	YOUR LOVE HAD TAKEN ME - CONWAY TWITTY - MCA 40963	10	12		
7	DO YOU EVER FOOL AROUND - JOE STAMPLEY - EPIC 50626	11	12		
8	REST YOUR LOVE ON ME - THE BEE GEES - ABC 12434	19	10		
• 9	COME ON IN - THE OAK RIDGE BOYS - ABC 12434	19	8		
• 10	TEXAS - TANYA TUCKER - MCA 40976	21	8		
• 11	I JUST CAN'T STAY MARRIED TO YOU - CHRISTY LANE - LS 169 (GRI)	22	8		
12	DOUBLE S - BILL ANDERSON - MCA 40964	12	13		
13	DON'T YOU THINK - WAYLON JENNINGS - RCA 11390	3	15		
14	STORMY WEATHER - STELLA PARTON - ELEKTRA 45533	16	17		
• 15	THE OFFICIAL HISTORIAN - THE STATLER BROTHERS - MERCURY 55048	26	7		
16	WE'VE COME A LONG WAY BABY - LORETTA LYNN - MCA 40954	8	13		
• 17	THE FOOTBALL CARD - GLENN SUTTON - MERCURY 55052	28	5		
18	I'VE DONE ENOUGH DYIN' TODAY - LARRY GATLIN - MONUMENT 270	20	12		
• 19	SAVE THE LAST DANCE FOR ME - JERRY LEE LEWIS - SUN 1139	33	7		
20	RHYTHM OF THE RAIN - JACKY WARD - MERCURY 55047	15	12		
21	CAN YOU FOOL - GLENN CAMPBELL - CAPITOL 4638	7	20		
• 22	EVERY WHICH WAY BUT LOOSE - EDDIE RABBITT - ELEKTRA 45554	41	5		
• 23	WHISKEY RIVER - WILLIE NELSON - COLUMBIA 10877	42	5		
• 24	MABELLENE - G. JONES & J. PAYCHECK - EPIC 50621	17	5		
25	THE BULL & THE BEAVER - HAGGARD & L. WILLIAMS - mca 40962	4	17		
26	ALL OF ME - WILLIE NELSON - COLUMBIA 10834	6	16		
27	FRIEND, LOVER, WIFE - JOHNNY PAYCHECK - EPIC 50621	17	16		
28	BURGERS & FRIES - CHARLEY PRIDE - RCA 11319	18	16		
29	THE SONG WE MADE LOVE TO - MICKEY GILLEY - EPIC 50631	32	10		
30	LADY LAY DOWN - JOHN CONLEE - ABC 12420	37	10		
31	GIMME BACK MY BLUES - JERRY REED - RCA 11407	38	10		
32	BACK TO THE LOVE - SUSIE ALLANSON - W.B./CURB 8686	23	15		
33	ONE RUN FOR THE ROSES - NARVEL FELTS - ABC 12414	24	16		
34	ON MY KNEES - RICH & FRICKE - EPIC 50616	25	24		
35	PLEASE DON'T PLAY A LOVE SONG - MARTY ROBBINS - COLUMBIA 10821	27	14		
• 36	TONIGHT SHE'S GONNA LOVE ME - RAZZY BAILEY - RCA 11446	57	5		
• 37	BACK ON MY MIND/SANTA BARBARA - RONNIE MILSOP - RCA 11421	61	5		
38	ALIBIS - JOHNNY RODRIGUEZ - MERCURY 55050	62	5		
39	SLEEPING SINGLE IN A DOUBLE BED - BARBARA MANDRELL - ABC 12403	29	22		
40	PLAYIN' HARD TO GET - JANIE FRICKE - COLUMBIA 10849	45	12		
41	AS LONG AS I CAN WAKE UP IN YOUR ARMS - KENNY ODELL - CAPRICORN 0309	46	10		
42	MAYBE YOU SHOULD'VE BEEN LISTENING - JESSI COLTER - CAPITOL 4641	47	13		
43	YOU DON'T BRING ME FLOWERS - BROWN & CORNELIUS - RCA 11435	48	8		
44	IT'S TIME WE TALK THINGS OVER - REX ALLEN, JR. - WARNER BROS. 8697	49	8		
45	HIGH & DRY - JOE SUN - OVATION 1117	50	12		
46	LOVE AIN'T GONNA WAIT FOR US - Billie Jo Spears8 - UNITED ARTISTS 1251	51	10		
47	REACHING OUT - DOTTIE WEST - UNITED ARTISTS 1257	52	7		
• 48	I'LL WAKE YOU UP - CHARLIE RICH - ELEKTRA 45531	71	3		
• 49	EVERLASTING LOVE - NARVEL FELTS - ABC 12441	72	3		
• 50	I WILL ROCK & ROLL WITH YOU - JOHNNY CASH - COLUMBIA 10888	73	3		
51	THE JEALOUS KIND/LOVE ME AGAIN - RITA COOLIDGE - A & M 2090	53	11		
52	HAPPY TOGETHER - T.G. SHEPPARD - W.B./Curb 8721	58	5		
• 53	I HAD A LOVELY TIME - THE KENDALLS - OVATION 1119	-	1		
• 54	SEND ME DOWN/CHARLIE'S ANGELS - MEL TILLIS - MCA 40983	-	1		
• 55	GOLDEN TEARS - DAVE & SUGAR - RCA 11427	-	1		
• 56	IF I COULD WRITE A SONG - BILLY 'CRASH' CRADDOCK - CAPITOL 4672	-	1		
57	I'M GONNA/OLE SLEW FOOT - PORTER WAGONER - RCA 11411	59	5		
58	IF EVERYONE HAD SOMEONE LIKE YOU - EDDY ARNOLD - RCA 11422	60	5		
59	MR. JONES - BIG AL DOWNING - WARNER BROTHERS 8716	63	5		
60	FALL IN LOVE - RANDY BARLOW - REPUBLIC 034	64	5		
61	BUILDING MEMORIES - SONNY JAMES - COLUMBIA 10852	66	5		
• 62	SOMEBODY SPECIAL - DONNA FARGO - WARNER BROTHERS 8726	-	1		
• 63	STILL A WOMAN - MARGO SMITH - WARNER BROTHERS 8722	-	1		
• 64	IT'S A CHEATING SITUATION - MOE BANDY - COLUMBIA 10889	-	1		
• 65	THEY CALL IT MAKING LOVE - TAMMY WYNETTE - EPIC 50661	-	1		
• 66	TRYIN' TO SATISFY YOU - DOTTSY - RCA 11448	-	1		
• 67	I JUST FALL IN LOVE AGAIN - ANNE MURRAY - CAPITOL 4675	-	1		
68	LOVE AIN'T MAKE FOR FOOLS - JOHN WESLEY RYLES - ABC 12432	74	3		
69	THE FOOL STRIKES AGAIN - CHARLIE RICH - UNITED ARTISTS 1269	75	3		
70	SON OF CLAYTON DELANEY - TOM T. HALL - RCA 11453	-	1		
71	HEALIN' - BOBBY BARE - COLUMBIA 10891	-	1		
72	FANTASY ISLAND - FREDDY WELLER - COLUMBIA 10890	-	1		
73	THE OUTLAW'S PRAYER - JOHNNY PAYCHECK - EPIC 50655	-	1		
74	IF LOVING YOU IS WRONG - BARBARA MANDRELL - ABC 12451	-	1		
75	TAKE ME BACK - CHARLY MCCLAIN - EPIC 50653	-	1		



**Put your hand  
against this page.**

**(Can you feel the  
excitement coming through?)**



AMI MICROPROCESSOR CONTROL • STEREO • 200 SELECTIONS •

DISCO  
200

CONTROL PANEL

DISCO 200

STEREO

200 SELECTIONS

1 2 3 4 5 6 7 8 9 0

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

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151 152 153 154 155 156 157 158 159 160

161 162 163 164 165 166 167 168 169 170

171 172 173 174 175 176 177 178 179 180

181 182 183 184 185 186 187 188 189 190

191 192 193 194 195 196 197 198 199 200

# We just put an entire disco into a jukebox. The Rowe Disco 200.

Check out our new Disco 200 jukebox, and find all the elements of a successful disco.

## Lights, lights, lights

To fully appreciate the Disco 200, you have to see it in action. When there's no music playing, the front panel flashes and glows with color. Bathing the area around it in excitement.

But it's not until the music begins that the fireworks really start, and the 200's lights come to life: dancing and pulsating to the music itself. Just like a disco.

## Power, power, power

Of course, the essential ingredient of a disco (or a jukebox) is the sound that comes out. And the 200 produces sound in spades. A full 125 watts of it. And those are *honest* watts, producing more real power (and sound) than jukeboxes advertised at over 200 watts!

## Profit, profit, profit

All of these features are designed to help the Disco 200,

and you, make more money. In fact, the 200 is packed with money-making features. Like a "Memorec" computer memory that records every selection as a "vote", then tells you the total tally on a digital readout. Just press a button, and you get the exact number of times each record was selected.

Other features include Playmaker (it automatically plays a selection if too much time elapses between paying customers). As well as a host of profit-oriented design innovations.

## Unleash the excitement

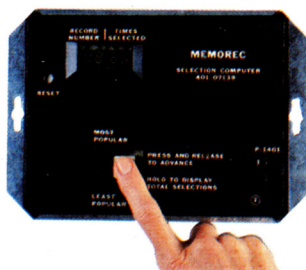
If you want the color, flash and verve of a disco, and want it in a jukebox, we urge you to find out more about our Disco 200. The disco that comes packed in a jukebox. Rowe International, Inc., 75 Troy Hills Rd., Whippany, NJ 07981, (201) 887-0400.



# It's part jukebox, part ballot box.

Now every location can vote for their own top 200 favorite singles.

Our new R-83 jukeboxes have a "Memorec" computer memory that records every selection as a "vote", then tells you the total tally on a digital readout. Just press a button, and you get the exact number of times each record in the machine was selected. From the most-played record down, from the least-played record up, or as a grand total of selections since the operator's last visit.



The advantages are obvious. Not only can you tailor individual jukeboxes to specific locations, but you can spot — early, — those records that aren't making it, or have fallen from favor. A feature that not only helps you program your R-83, but all others.

## New Disco 200

There are three jukeboxes in our R-83 line: the Fiesta, the



Fiesta

Claremont, and our new Disco 200, a unit that captures all the life and excitement of a discotheque in a jukebox. The 200 virtually explodes with light, throbbing and pulsating to the beat of the music.

## 25% More power to you

Backing up this new R-83 excitement is the most powerful amplifier ever put into a jukebox. Of course, the competition advertises more watts. But our 125 rating is determined by FTC standards and is a true measure of power, actually delivering 25% more power than units advertising 200 watts. (It all means more power, and sound, to more extension speakers.)

Claremont



## The jukeboxes with everything

In short, the R-83's have it all: new Disco 200 model, "Memorec" computer memory, more power, great looks, plus Playmaker (that automatically plays a selection if too much time elapses between paying customers).

Check into our new jukeboxes. We're putting our money into them. We know your locations will too.

Rowe International, Inc.,  
75 Troy Hills Road,  
Whippany, NJ 07981.



ROWE INTERNATIONAL, INC.  
75 TROY HILLS ROAD, WHIPPANY, NJ 07981  
PHONE (201) 887-0400

# Radio Additions

Radio information courtesy of Radio & Records

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## National Pop Radio Additions

### TRAGEDY—The Bee Gees—RSO

110 radio playlist additions last week. Among them: WFIL—Philadelphia; WKBW—Buffalo; WCAO—Baltimore; WROK—Boston; 96X—Miami; KRBE—Houston; KEEL—Shreveport; WLAC—Nashville; WOKY—Milwaukee; CKLW—Detroit; WLS—Chicago; WKY—Oklahoma City; KIMN—Denver; KJR—Seattle; KRTH—Los Angeles; KOPA—Phoenix.

### WHAT A FOOL BELIEVES—The Doobie Brothers—Warner Brothers

37 radio playlist additions last week. Among them: WIFI—Philadelphia; 99X—New York; WOLF—Syracuse; Y100—Miami; KEEL—Shreveport; KNOW—Austin; KLIF—Dallas; WOKY—Milwaukee; WNCI—Columbus; WIFE—Indianapolis; WKY—Oklahoma City; KIMN—Denver; KEWI—Topeka; KLUC—Las Vegas.

### THE SULTANS OF SWING—Dire Straits—Warner Brothers

36 radio playlist additions last week. Among them: WKBW—Buffalo; WYRE—Annapolis; 13FEA—Manchester; Z93—Atlanta; KNOW—Austin; Q105—Tampa; 92Q—Nashville; WEBC—Duluth; WJON—St. Cloud; WGBF—Evansville; KFI—Los Angeles; B100—San Diego; KOPA—Phoenix; KROY—Sacramento.

### CRAZY LOVE—Poco—ABC

26 radio playlist additions last week. Among them: WCAO—Baltimore; WPGC—Washington; 13Q—Pittsburgh; WQXI—Atlanta; WLAC—Nashville; WAPE—Jacksonville; KSTP—Minneapolis; WKY—Oklahoma City; KRTH—Los Angeles; KFRC—San Francisco; KING—Seattle.

### I WILL SURVIVE—Gloria Gaynor—Polydor

23 radio playlist additions last week. Among them: 96KX—Pittsburgh; Y103—Jacksonville; 94Q—Atlanta; WNCI—Columbus; WKY—Oklahoma City; B100—San Diego; KRVX—Phoenix; KENO—Las Vegas.

### I JUST FALL IN LOVE AGAIN—Anne Murray—Capitol

22 radio playlist additions last week. Among them: KLIF—Dallas; WLAC—Nashville; WLOF—Orlando; WKT—Oklahoma City; WOHO—Toledo; KRKE—Albuquerque; KFXM—San Bernardino.

### STUMBLIN' IN—Suzi Quatro & Norman Connors—RSO

22 radio playlist additions last week. Among them: WAVZ—New Haven; WGUY—Bangor; WLCY—Tampa; WSGA—Savannah; KELI—Tulsa; WAKX—Duluth; KRKE—Albuquerque; KGW—Portland.

### FOREVER IN BLUE JEANS—Neil Diamond—Columbia

20 radio playlist additions last week. Among them: WRKO—Boston; WHYN—Springfield; KLIF—Dallas; WAIR—Winston-Salem; WEBC—Duluth; KIOA—Des Moines; KRKE—Albuquerque; KYYX—Seattle; KRSP—Salt Lake City.

### SONG ON THE RADIO—Al Stewart—Arista

19 radio playlist additions last week. Among them: WJBQ—Portland, Me.; Z93—Atlanta; WAIR—Winston-Salem; WOHO—Toledo; KRKE—Albuquerque; B100—San Diego.

### KNOCK ON WOOD—Amii Stewart—Ariola

17 radio playlist additions last week. Among them: 96KX—Pittsburgh; WRKO—Boston; WKBW—Buffalo; Z93—Atlanta; KVIL—Dallas; KELI—Tulsa; KJRB—Spokane; KVI/FM—Seattle.

# National Country Radio Additions

TOO FAR GONE—Emmylou Harris—Warner Brothers

35 radio playlist additions last week. Among them: WOKO—Albany; WRCP—Philadelphia; WMZQ/FM—Washington; KVET—Austin; WHOO—Orlando; KWKH—Shreveport; WJJD—Chicago; WIL—St. Louis; KSO—Des Moines; KNIX—Phoenix; KRDR—Portland; KAYO—Seattle; KBBQ—Ventura.

I JUST FALL IN LOVE AGAIN—Anne Murray—Capitol

23 radio playlist additions last week. Among them: KLAC—Los Angeles; KNIX—Phoenix; WJJD—Chicago; WFMS/FM—Indianapolis; WWOK—Miami; WSM—Nashville; WYLD—Montgomery; WPOC/FM—Baltimore; WPOR—Portland, Me.

CHEATIN' SITUATION—Moe Bandy—Columbia

22 radio playlist additions last week. Among them: WMZQ/FM—Washington; WRCP—Philadelphia; KVET—Austin; WUNI—Mobile; WKDA—Nashville; WJJD—Chicago; WIRE—Annapolis; KCKN—Kansas City; KRAM—Las Vegas; KFTN—Provo.

I'VE BEEN WAITING FOR YOU—Con Hunley—Warner Brothers

21 radio playlist additions last week. Among them: WOKO—Albany; WMZQ/FM—Washington; KOKE—Austin; KRMD—Shreveport; WJJD—Chicago; WIL—St. Louis; KNIX—Phoenix; KIDN—Pueblo.

SWEET MEMORIES—Willie Nelson—RCA

18 radio playlist additions last week. Among them: KRZY—Albuquerque; KRDR—Portland; KCKN—Kansas City; WINN—Louisville; WPLO—Atlanta; KOKE—Austin; WHOO—Orlando.

LOVING YOU IS A NATURAL HIGH—Larry G. Hudson—Lone Star

18 radio playlist additions last week. Among them: KNIX—Phoenix; WFMF—Flint; WKKN—Rockford; KOKE—Austin; WFDA—Nashville; WRCP—Philadelphia; WADR—Utica.

TAKE ME BACH—Charly McClain—Epic

16 radio playlist additions last week. Among them: KNIX—Phoenix; WTSO—Madison; WKKN—Rockford; KENR—Houston; WWOK—Miami; WKDA—Nashville.

MY HEART HAS A MIND OF ITS OWN—Debby Boone—W.B./Curb

15 radio playlist additions last week. Among them: KLAC—Los Angeles; KNEW—Oakland; KSON—San Diego; WJJD—Chicago; WFMS/FM—Indianapolis; WWVA—Wheeling; WQQT—Savannah.

HEALIN'—Bobby Bare—Columbia

14 radio playlist additions last week. Among them: KRZY—Albuquerque; WITL—Lansing; WKKN—Rockford; WRCP—Philadelphia; KENR—Houston; WKDA—Nashville.

WORDS—Susie Allanson—W.B./Curb

13 radio playlist additions last week. Among them: KRDR—Portland; KGA—Spokane; WKMF—Flint; WSTO—Madison; KWKH—Shreveport; WYLD—Birmingham.

## PLAY METER

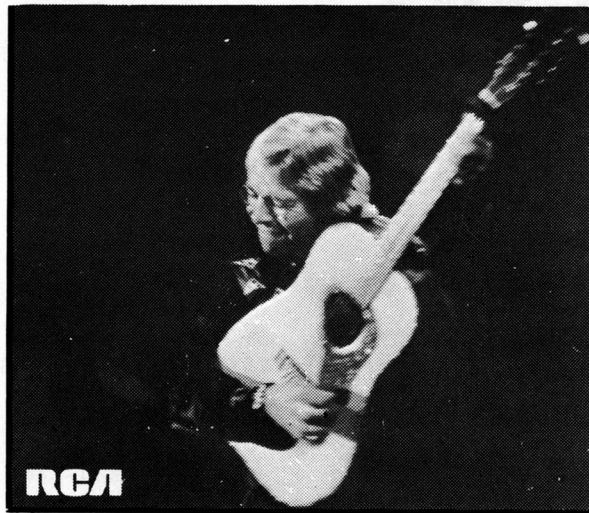
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the magazine operators believe**

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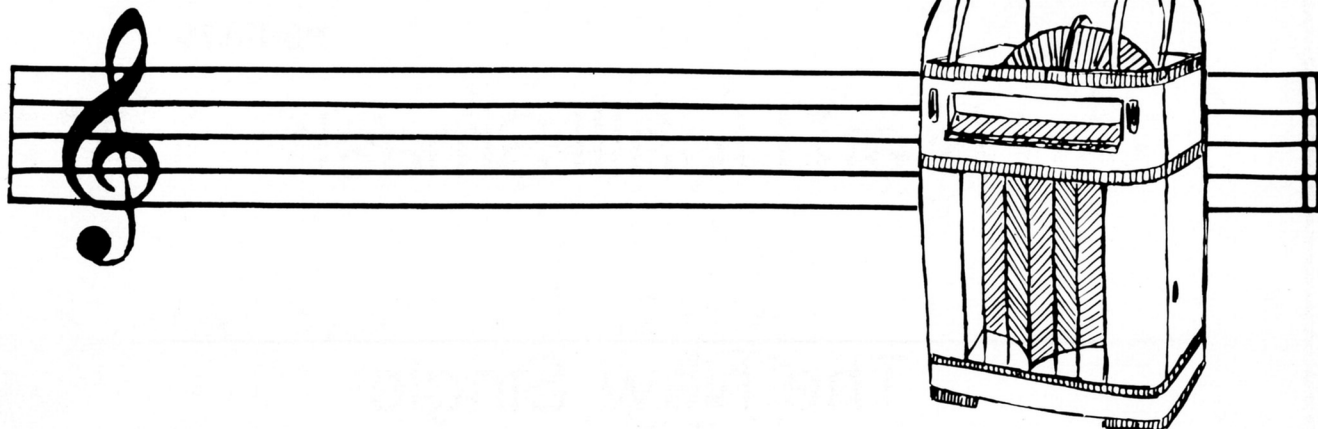


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# Consensus

## Pop Looking Ahead

- 1 CRAZY LOVE - POCO - ABC 12439
- 2 ALL THE TIME IN THE WORLD - DR. HOOK - CAPITOL
- 3 LOVELY WIND - KANSAS - KIRSHNER 4280 (CBS)
- 4 MAYBE I'M A FOOL - EDDIE MONEY - COLUMBIA 10900
- 5 LIVIN' IT UP - BELL & JAMES - A & M 2069
- 6 YOU CAN DO IT - DOBIE GRAY - INFINITY 50003
- 7 BABY I NEED YOUR LOVIN' - ERIC CARMEN - ARISTA 0384
- 8 MUSIC BOX DANCER - FRANK MILLS - POLYDOR 14517
- 9 DOG & BUTTERFLY - HEART - PORTRAIT 70025 (CBS)
- 10 POPS - ROSS, WONDER, GAYE & ROBINSON - MOTOWN 1455

## New Chart Entries

-POP-

- 62 WHAT A FOOL BELIEVES - THE DOOBIE BROS. - WARNER BROS. 8725
- 63 I JUST FALL IN LOVE AGAIN - ANNE MURRAY - CAPITOL 4675
- 64 FOREVER IN BLUE JEANS - NEIL DIAMOND - COLUMBIA 10897

-COUNTRY-

- 53 I HAD A LOVELY TIME - THE KENDALLS - OVATION 1119
- 54 SEND ME DOWN/CHARLIE'S ANGELS - MEL TILLIS - MCA 40983
- 55 GOLDEN TEARS - DAVE & SUGAR - RCA 11427

-R&B-

- 53 JUST THE WAY YOU ARE - BARRY WHITE - 20TH CENTURY 2395 (RCA)
- 54 SHAKE YOUR BODY - THE JACKSONS - EPIC 50626
- 55 LIVIN' IT UP - BELL & JAMES - A&M 2069

## Country Looking Ahead

- 1 WISHING I HAD LISTENED - BOBBY BORCHERS - EPIC 50650
- 2 PLAY ME A MEMORY - ZELLA LEHR - RCA 11433
- 3 ANY DAY NOW - DON GIBSON - HICKORY 54039
- 4 TOO FAR GONE - EMMYLOU HARRIS - WARNER BROS. 8732
- 5 AT MIDNIGHT - T CONNECTION - DASH 5048 (TK)

## R&B Looking Ahead

- 1 HOLD YOUR HORSES - FIRST CHOICE - GOLD MINE 4017 (SALSOL/RCA)
- 2 KEEP IT TOGETHER - RUFUS - ABC 12444
- 3 HE'S THE GREATEST DANCER - SISTER SLEDGE - COTILLION 44245 (ATLANTIC)
- 4 POPS - ROSS, WONDER, GAYE & ROBINSON - MOTOWN 1455
- 5 AT MIDNIGHT - T CONNECTION - DASH 5048 (TK)

## Hot Chart Climbers

-POP-

- 72-48 GET DOWN - GENE CHANDLER - 20TH CENTURY 2386
- 73-49 I WILL SURVIVE - GLORIA GAYNOR - POLYDOR 14508
- 74-50 I GO TO RIO - PABLO CRUISE - A&M 2112

-COUNTRY-

- 61-37 BACK ON MY MIND/SANTA BARBARA - RONNIE MILSAP - RCA 11421
- 71-48 I'LL WAKE YOU UP - CHARLIE RICH - ELEKTRA 45531
- 72-49 EVERLASTING LOVE - NARVEL FELTS - ABC 12441

-R&B-

- 63-33 I WILL SURVIVE - GLORIA GAYNOR - POLYDOR 14508
- 68-41 YOU CAN DO IT - DOBIE GRAY - INFINITY 50003 (MCA)
- 62-36 LIFE IS A SONG - TEDDY PENDERGRASS - PHILA. INT'L. 3669 (CBS)



## JAA Show Report

# 'Japan is a monster'

The first words uttered by Henrei Manst, the distributor in France, and the Chairman of SEAF were "Japan is a monster."

Manst was heading a fifty-man mission to the amusement show.

"I visit the JAA show every year and am amazed at the new developments made each year. Japan is truly a monster. There are no shows in France of this scale and high quality. The display area is so wide and the number of machines are so many I regret I have but only two eyes. The rest of the members of the mission, I am sure, have the same feeling," exclaimed Manst. His words well explain the feelings of many overseas visitors to the show.

At 9:30 a.m. on the first day of the show, a large number of people were waiting impatiently for this once a year show which started after the opening ceremony. The first and second day was limited to the trade people to whom invitations were sent. The large turnout indicated that each company made good use of the invitation cards allotted them. The unexpectedly large number of visitors filled the wide pavilion with excitement.

In past years, the pavilion was divided into the Arcade Zone and the Medal Zone but this year a Vehicle (large) Zone was added. The visitors to the show one after the other said that the new layout made it much easier to see the products on display.

Like last year, large machines, such as the *Space Seven* of Toyo Goraku Company and the *Astroliner* of Meisho Tokushu Sangyo Co., Ltd. were displayed. The size of the displays made one think one was not indoors and this created much talk among the people of the trade.

The trend in the types of machines displayed was more strongly toward electronics which started two to three years earlier and the products of each company were more advanced in technology. Also, there were more variations in the kinds of machines so that each operator could select the



*A Vehicle (large) Zone was added to this year's show. From the size of some of the equipment, many said they were left with the impression that the exhibit was being held outdoors.*



American pinballs held their own and drew a lot of play.



Taito Corp.'s table games were closely examined.



Upright video games were, as usual, of great interest to the visitors.

type most suited to his needs. All kinds of sizes of arcade table type flippers were on display which showed the strong intentions of the makers to meet the industry's needs.

On the other hand, there were many outstanding games which were simple in nature, such games as those which test one's strength or accuracy at throwing balls, etc. This was viewed as a reverse trend to television games which are becoming more and more complicated. People it appears are beginning to take a new look at the simple games. A distributor in one local area said: "I didn't see any new products of a radical nature but the products on display are more elaborate in design and in technology. I have already found several machines that I want." So saying, he took a memo pad filled with notes, from his coat pocket.

Many dealers and traders could be seen writing down the names of new products as well as the machines they were interested in. The success of the show as a business show could be seen as visitors used the backs of catalog folders to take down notes while others were deeply engrossed in concluding contracts at the "Transaction Corner."

In particular, the table type television games, which were exhibited for the first time at last year's show and which created much talk at that time, have taken the market by storm. At this show, many new types of television games were put on display for the operators to see.

One old timer said, "There are a lot of new faces here. They must be

table television dealers. Up to now, it was very rare to see a girl making a selection of the machines, but this year it looks different. I hope the makers take good care of them." Indeed, there were 25 companies exhibiting television games. The foreign visitors did not pay much attention to the television game machines. Practically no coffee shops in France use a table television game, and there are only a few doing so in Italy. However, there were quite a few upright type television games in both France and Italy.

Ms. Lila Zinter of Exidy Inc. a leading television game machine maker of California said: "Japan is doing quite well in arranging American machines for the Japanese market. We do not think this is a competition to us but that it rather stimulates us. I have gotten several ideas from this show and plan to put these ideas into designs as soon as I return to the States."

The Japan Show is an amusement machine show which ranks among the three largest shows of its kind in the world. Concerning the high quality of the machines exhibited, there were a large number of visitors from overseas who evaluated the quality highly.

Edward Miller, president of Taito America Corporation said, "When considering only the small size machines at the JAA Show, the size of the show is smaller than the AMOA Show which took up three large rooms but from the point of product quality and the abundance of types, the JAA Show was just as

good as the AMOA Show. I hope future shows will not stress size as such but moreso higher quality."

Jean Pierre Fougere of Sovoda, of France, said, "I had heard of the size of this year's JAA Show before coming to Japan but I was surprised by the high technology of each machine. This was much more than I had anticipated. Without doubt, Japan is among the top class in the world in electronic technology. The AMOA Show differed somewhat in character from the JAA Show and so a general comparison cannot be made."

According to Ira Bettelman of C.A. Robinson, Japan "has caught up with Italy in the color and design of small size vehicles."

This high evaluation was given to the larger number of designs and variations compared to last year. During the past two or three years, large size shopping centers were developed as suitable locations and with this the demand for small size vehicles is expected to increase. The development and expansion of small size and medium size vehicles is expected as appeals are made for the healthiness of amusement game machines.

Children who normally cannot find adequate facilities for play came on the third day when the show was opened to the public. They came in great numbers accompanied by their parents or a guardian and enjoyed themselves tremendously as they stared wide eyed at the many products on display, at this once a year amusement machine show.

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# Looking back at the show



This past year's amusement machine show was very satisfactory thanks to the cooperation of all.

Like last year, many new products were displayed again this year showing the ultimate technology of this industry. Significant was the movement toward creating new markets as exemplified by the table television game. This has expanded the base and size of this industry.

Also, again there were a large number of visitors from abroad and the JAA Show has developed to a point where it is becoming the top show of the world. For this reason, further unity is called for within the industry for even greater advancement and to tackle the problems faced head on.

Of prime importance is that all concerned set a model example and in particular the large makers should understand their leadership role and

be obliged to set an example. There should be a common understanding and expert decisions should be made.

It was proper that two days were given to the invited businessmen from the practical standpoint. The name tags which all wore as well as the newly set up vehicle zone contributed greatly to the convenience of the businessmen of each company. The transaction corners were all well utilized and it is said that a large number of transactions were concluded.

Before concluding, I wish to express my appreciation to all those connected with the Show and to the committee members who took time away from their business to help make the show a success.

—By Masaya Nakamura  
Chairman, JAA Show Committee

## The facts and figures

The 16th Amusement Machine Show sponsored by the Japan Amusement Trade Association was held with much color for 3 days on October 18, 19 and 20.

The 9,000 square meter display area of the big machine pavilion at the Tokyo International Trade Fair Center at Harumi was used 100 percent to hold the largest ever amusement machine show. The show which was held for 3 days drew great attention not only from the amusement industry but from other industries, as well, and also from overseas.

64 companies displayed their products in 292 booths comprising a space of 1,510 square meters and the large size machines which were displayed in continuation to last year filled the high domed pavilion. The

numerous products from each company made the large area appear to be crowded.

The first day was a beautiful autumn day, but the second and third days it rained lightly during the mornings. However, more than 30,000 persons visited the show during the three days, mainly people concerned with the industry. This year's show stressed a business-like atmosphere and a large number of transactions were concluded.

The show was also introduced over the television program "Business Now" and in this way the 16th Amusement Machine Show played a big role in publicizing the industry.

The next show is scheduled to be held for three days again during October 19, 20 and 21 in 1979 at the same fairgrounds.

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'Agean Sea Wolf' singlehandedly revived the games industry in Greece

# Pinball Through the Ages

**Text by Tom Stroud**  
**Drawings by Tim Skelly**

After many years of reading various books and articles about pinball, I find that they all have the same drawback. Practically all of these books and articles are informative; but, unfortunately, they all begin in the twentieth century. Not one has ever mentioned the fine tradition of amusement equipment handed down from ancient Greece, ancient Rome, and the days of King Arthur.

Something must now be done. Too long have we in the amusement industry remained ignorant of our proud heritage. Too long have we groped through the darkness, laboring in ignorance of proud traditions. Let us now raise a lamp against the shadows of ignorance, and let the story be told.

## Ancient Greece

No discussion of games in ancient Greece can be complete without a brief mention of the games that preceded it. After the demise of Cairo Coin's long-standing smash, *Pharoah*, with its spinning pyramid targets and smiling sphinx artwork, the entire game industry faced worldwide doldrums. Major manufacturers began just copying each other and re-hashing old games into new ones.

Alexander by Macedonian Amusement sent a faint pulse through the industry's veins, but was basically a copy of games by companies like Nile Novelty and Troy Engineering.

Actually, it was not until Athens

Amusement introduced its blockbuster *Agean Sea Wolf* that the business began rolling again. Greek lyceum locations reported record earnings—some of which still stand today. It would be very safe to say that *Agean Sea Wolf* is the crowning achievement of the Grecian game industry.

## Ancient Rome

When business talk turns to ancient Rome, there is only one company worth discussing. I know many will disagree, but to me there is only Coliseum Coin. Who can forget *Appian Way*, with its Mongol Horde drop targets, or *Gladiator*, with its backglass design by Artus Crassus? There are those who will argue for the entries by companies like Vesu-



**Coliseum Coin put out so many good games, a player could hardly decide which to play**

vius Vending and Palermo Products, but their efforts were pale by comparison.

The crowning achievement of Coliseum Coin was the fabulous *Pompeii*. This fast action game featured a fire effect that was not surpassed until *Reichstag*, the crude video game found in Hitler's war bunker.

Technical highlights from Coliseum Coin included digital scoring in Roman numerals and the world's first bronze logic board. Until the rise of

Hun Enterprises, Coliseum Coin ruled the roost.

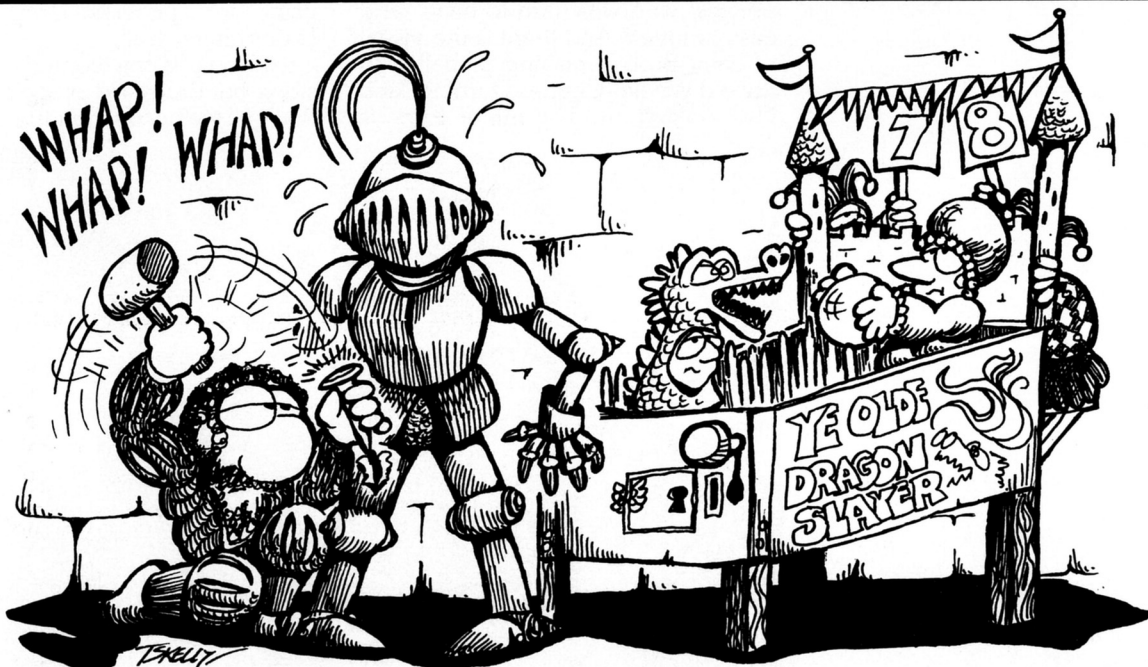
#### **The Days of King Arthur**

When knighthood was in flower, so was the game business. Recent games like *Galahad* give us some idea of the romance of this glorious period, but to see it truly you have to feast your eyes on the real thing.

This period was clearly dominated by Camelot Coin and Albion Amusement. One glance at the beauty and grace of a *Stonehenge* or a *Daring*

*Druid* gives one an inspiring introduction to this period, but a turn or two on an *Excalibur* or a *White Knight* makes a dragon slayer out of even the hardest heart.

It would be too hard to decide whether the Greeks, Romans, or Knights of the Round Table made the finest achievements in our great industry, but one lesson stands clear to all. Every contribution is an addition to the whole, and an awareness of our heritage is a must to possess.



**In King Arthur's day, pinball was the fashion. Getting out the change, however, was a problem**

Gambling, drugs, sex. . . pinball-- it's all here in the movie "Tilt"

# Duck, Pinball!

## Here comes 'Tilt'!

By Roger C. Sharpe



*Brooke Shields plays the part of a "pinball princess who was hard to beat—and easy to love" in a new motion picture about to be released. But even though the new movie will mean more exposure for the game of pinball, operators may find out it's not the kind of exposure they want.*

Well, if you liked Brooke Shields in "Pretty Baby" for her winsome portrayal as a child in a house of ill repute, then you'll have no problem with her next big roll upcoming in the movie "Tilt."

Yes, a pinball movie, at last, besides the epic "Tommy." But this time around we are in for more trouble than this industry needs. After all, how does the story of a young girl hustling at pinball strike you? Just think of Steve McQueen in the "Cincinnati Kid" and Paul Newman in "The Hustler" and now Shields in her own battle. There it is, pinball in the same class as card sharking and pool parlor finessing. It's enough to make you wonder how pinball expects to survive. Because of all the "help" much of the publicity is garnering, a lot of it just isn't beneficial to the long term growth and survival of the game in general.

But let's take a look at the book and the story. A Dell paperback, the cover offers the following description of what one is about to read: "The tough and tender saga of the pinball princess who was hard to beat—and easy to love." And there is the visual of baby Brooke playing pinball with the old Whale (Charles Durning) and Neil looking on. The minor tome is

written by James Creech III based on a story by Rudy Durand. And there it is. The players in the drama? They're described easily enough.

"Tilt—100 lbs. of dimpled dynamite on the pinball machine, old enough to know the world could be prettier, and young enough to try to change it..."

"The Whale—Harold S. Remmens, 350 lbs. of light-fingered champ, who ate pinball geniuses for breakfast, and showed Tilt just what you could win by losing.

"Neil Gallagher—A hard-rock dreamer and schemer who wanted only one thing more than wealth and glittering stardom, and that was to see the Whale go down. Tilt was his way to get all three..."

And so you've met all the characters and maybe you're even thinking what am I getting so excited about. So what if the story is about pinball and gambling. Well, I'll tell you something. Even if you like the story and I'm not commenting on the quality of the tale, the problem is that it reinforces the image of pinball as a game for gambling and hustling. Unfortunate, truly.

Not only is this connection in the story, but drugs are used as well and that's all we need when the subject of



pinball comes up. Whether the book can be seen as something more than fiction is beyond the question, the real dilemma is that the association of the machines in the book are enough to set legislation back thirty years.

And just wait until the movie hits the screens. Someone somewhere is going to pick up on it and wage a holy crusade to wipe out pinball in some god-forsaken area. And people are going to listen because if it's on the silver screen then, of course, there has to be some truth to it. The results could prove to be devastating.

What has to be done is that everyone has to divest themselves of any connection with the film and with the image it represents for the games, but admittedly nothing will be done this time around or any other time. Too bad, because the grave is being dug deeper and deeper when it comes to the survival of the games in even the most congenial territories. And when you take a look at the book itself, the passages dealing with the pinball contests aren't even as evocative as they could be if they were being written by a true pinball player. The book keeps on falling short of the mark and doesn't even deal with realistic scoring limits for the number of games throughout the book. But this is only a minor detail.

The big factor is the storyline and how it will effect any wavering legislation. It cannot help, and my question is whether anyone is willing to do anything about it. I'm not talking about a boycott, but rather some industry-wide ads condemning the picture when it begins to appear across the country.

Try to picket the theaters where the film will be playing, voicing an opinion as to the unfair image it offers of the games. Sponsor some good, clean, and regulated tournaments to counteract the publicity the film will be getting. These are just some of the steps to be taken.

I know, however, that nothing will be done. Pinball will go on, tainted as always and the bottom line will still be the only thing that counts—what's in the cashbox.

Some may even put "Tilt" machines in their locations trying to get some business on the coattails of the picture. Why not capitalize on it, right? Wrong. But what the hell. It's only your business and livelihood that is in jeopardy; no big deal. Nothing to worry about. There's always another job you can fall back on if this one fails. Or is there? And do you care enough?

Let's see if you remain idle while the injustice goes on. Or whether you've had enough and are as "mad as hell and not going to take it anymore."

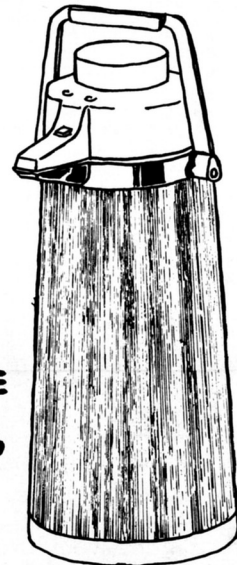
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## Two foreigners . . .

[Ed. Note: Because we've had a number of requests over the months as to the significance of Roger C. Sharpe's ratings, here again is an explanation of what those #'s mean.

The explanation comes from Roger's first "Critic's Corner" (which for you dyed-in-the-wool trivia buffs was in the July, 1976 issue of PLAY METER):

"What I'll be endeavoring to do is rate games from a playing, as well as graphic, standpoint. Hopefully, no feathers will be ruffled, but if they are, then I can only wish that everyone will learn to have a more discerning eye for what is a great game versus a good one. To indicate my overall impressions of any particular model, I'll steal from the music area the sharp symbol, #, which will be broken down this way:  
 ##### excellent game  
 ### good game  
 ## average game  
 # fair game

With that said, let's get on with this month's installment from our fearless critic, Roger C. #].

### Universal's HERCULES

A two-player electro-mechanical pin with electronic sounds is the offering from this Japanese company that bills it as the "Hercules of flippers." Unfortunately, the game falls far short of the expectations.

**PLAYFIELD:** Three lanes (1-1000-2) start the action at the top with a triangular thumper bumper arrangement just below on the field. Below this at the center is a spinner and target (7) set with rather wide openings to the left and right. At extreme side, both left and right are rollover lanes (3-4) at the left and (5-6) at the right. Also at the far right is a tucked in "hole" as it's called by Universal (8).

Move down the field and much of the angles aren't in existence with two bulls-eye targets at the right (A-B) and a bottom that features very

short wire lanes to the left flippers and fairly wide outside drains.

**ANALYSIS:** Well, *Hercules* does offer something that I like, which is the use of multiple numbers for rollovers that really economizes the play on the machine. Unfortunately, the play isn't up to domestic standards. Not only did the game keep breaking down at the show (AMOA where I played it), but there were also some design faults, such as a spinner that sometimes held the ball in its narrow space.

The power on the flippers was also lacking. In this day and age, with pinball technology at a premium, it is difficult to think that a machine really conceived with bygone era features can succeed. There's no bonus multiplier, and although scoring is in six digits, it just doesn't matter.

What the game could be good for would be the home market if it could hold up because the interest is there on a fairly light level. The best shooting areas for the game? Both side lanes and the center spinner area, if the action can be sustained in terms of power to the board.

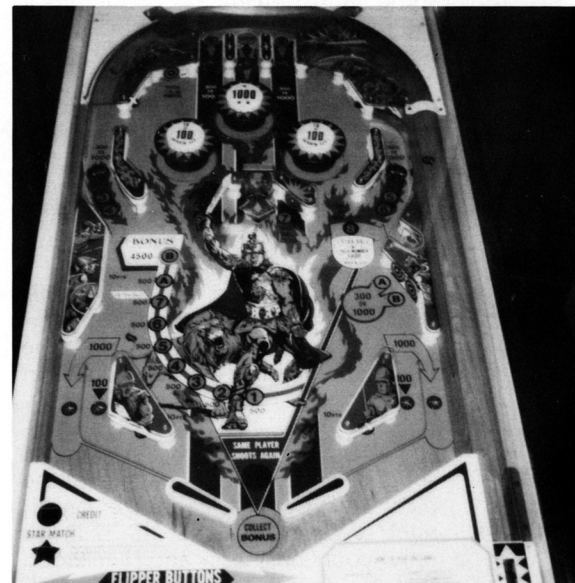
**GRAPHICS:** The artwork on *Hercules* isn't half bad. There's good use of color and tones and a very macho combat scene on the back glass that isn't in the class with *El Cid* or even the old *Steve Reeves* epics, but what the hell, those weren't pinballs and this is.

**PLAY:** I'll be quite honest on this one, since the game really didn't play through completely enough times, the scoring is difficult, if not impossible to judge. The one word here is that if you're going to take a machine to a convention, make sure it works, otherwise, everything is lost and even the strength of *Hercules* won't help you.

**RATING:** #

### Inder's KEOPS

Besides the misspelling of the name, hopefully on purpose (the real



Universal's HERCULES



# and a wide-body hit

one used a CH instead of a K), this machine from Spain is an oddity: after all, when was the last time you saw a one-player solid state pinball?

**PLAYFIELD:** The playfield begins with five lanes appropriately (K-E-O-P-S) and then offers two recessed targets just below and a fairly butted in double thumper bumper (with rectangular canopies) area that keeps much of the action in this top section of the field. Two spinner lanes, one at either side and then sides that feature two targets each for values that range from letters (E-P), extra ball value, 50,000 points and specials. At center are the main components of the board: a drop target bank of five (white-green-red-yellow-blue) which just so happen to correspond to the top lanes.

The bottom has a right side configuration borrowed from such Gottlieb games as *Fast Draw* and *Spirit of 76* as well as such a recent effort as Stern's *Wild Fyre*. It's two short lanes down to the flipper and a more conventional left side lane, although red plastic is used for the arch rather than the standard wire.

**ANALYSIS:** When I was going through the playfield did *Keops* sound familiar? Well, if it didn't, it should have unless you were somewhere out of this planet when Gottlieb unveiled *Cleopatra*. This is really a knock-off effort that one could expect from Maresa of Spain but not Inder.

Nonetheless, it's here and the additional spinners and lack of kick-out holes kind of balance off, although the original edition still stands as a better machine. I mean *Keops* is okay, but *Cleo* was *Cleo* (a game I liked and still do) and besides, are there really places that want a single-player solid state pin?

In terms of action the play wasn't too bad, even better than the other machines on display, but I think it's a rub-off effect due to the design of the game.

**GRAPHICS:** Very pale, very

pastel and I don't remember Egyptian women with curls, but *Keops* has all this and even more, although there is really nothing striking about the graphic treatment. Of course, King Tut is "in" this year, so who knows how timely this is?

**PLAY:** The scoring on *Keops* wasn't too bad once you get the targets and lanes, although there is no great shakes on the regular out-hole bonus potential. Decent limits would be about 150,000 for the first followed by 300,000 and 450,000 for free play and less 50,000 points on each for extra ball areas.

**RATING:** ##

## Williams' POKERINO

The second wide-body from "the hot ones" has Steve doing much more on the field to take advantage of the extra space.

**PLAYFIELD:** Well, let's start with the top four rollovers (aces) in this card game pin game. At the right is a nicely done lane behind a drop target bank that advances the bonus multiplier. The drop target bank (four Queens) is just to the right of three thumper bumpers. Move down a bit and there's a center target and above this an almost hidden rollover button that controls the four 10s.

Go to the left side and there's more action with a wide spinner lane and an updated multiple captive ball arrangement (Kings). The width really comes into play as you move further down with two drop targets on either side controlling the Jacks. Double flippers and kickers are the bottom finishing off the machine.

**ANALYSIS:** You can play *Pokerino* ten times and play ten different games. There is a lot of action and all sorts of strategy and play involved that truly utilizes the space on the field, as well as a variety of shots—both left to right and right to left and also some nifty reverses.



Inder's KEOPS

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6	1	2	4	8	16	32	64	128	256	512
8	1	2	4	8	16	32	64	128	256	512
10	1	2	4	8	16	32	64	128	256	512
11	1	2	4	8	16	32	64	128	256	512
12	1	2	4	8	16	32	64	128	256	512

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Some features carry over depending upon three- or five-ball play and a center target that can mean as much as 50,000 points. In fact, the scoring potential is as great as was the case on *Contact*.

The captive balls at the left offer a good skill shot to get the ball around the "loop." The Jack drop targets are better gotten by rebounds off the bottom kickers and the 10s' rollover is a better get from action flowing top to bottom and side to side. The Aces are a beauty of a plunger shot onto the field if you get the velocity right to knock them all off in one sweep and the Queens are a flipper shot or thumper bumper rebound. Bonus multiplier is a carry-over except for 5X which recycles everything back to the beginning, but the rollover lane that controls this is fairly makeable the majority of the time. Spell out P-O-K-E-R-I-N-O by getting the targets, captive balls and rollovers and specials light up almost everywhere.

The problem with the play, if there is any, is that with so much on the game, players have a difficult time adjusting to the openness and at the same time to the choice of what to do and when. The bottom flipper arrangement is a frustrating attempt at control and cradling the ball and there are very few rest periods during the course of any given ball unless you can send it back to the top. The angles are nice though for a variety of nudging forays which should please the better caliber of player.

GRAPHICS: A little deco, a little leg and some nice color is what *Pokerino* has to offer as well as some distinctive Williams' sound effects. In fact, for a card theme, this probably ranks right up there with the best and is something that I like a great deal.

PLAY: *Pokerino* as I mentioned before is a high scoring game, or at least it can be depending upon how the shots are going. For three-ball play in extra ball areas, good limits seem to be about 200,000 to start, followed by 400,000 and 600,000 points. You might want to raise this by about 75,000 to 125,000 points for each limit on free play and depending upon the caliber of player you have in your location.

RATING: ####

And that's it for this installment of the corner. Next time, weather conditions and sorted arrangements permitting, this writer will give you a rundown on the ATE show and the pins scheduled to be there. Until then have a good Valentine's Day and give my best to Lincoln and Washington. Also, be well and prosper.



Williams' POKERINO

## Williams DC Jet Bumpers-- revisited

It is the feeling of our Engineering Department that the information given in the "Technical Topics" article on page 93 of the November 15 issue could possibly cause damage to the system. Also, we do not recommend the taking turns off of any coils.

Our specifications call for about five-ohm resistance on all coils. At the present time we are upgrading to a G23-900 DC coil on all targets.

I am enclosing our solid state number 4 service bulletin (see box) in reference to this problem. As noted on the bulletin this will improve the general performance and this fix can also be used on the kickers.

**Robert E. Prinzing**  
Manager, Field Services  
Williams Electronics

**WRITER'S RESPONSE**—The coin operated machine industry is a very peculiar one. There are several definitions that could be given regarding its multiple aspects. Manufacturers, distributors, and operators have their defined roles and although harmony seems to be the common target, it doesn't happen all the time. There is a noticeable effort by conscious groups within the industry to reach such a goal. Most manufacturers (like Williams) do try to back their products the best way possible, which is natural with such competition in the market. Down the line, the operator is eager to buy any game that is a money maker.

But is every game a money maker? Experience tells us not! Most of the games released recently on the market are good ones, but still the fact that a game will gross well on practically any location does not prevent failure from occurring. The cabinets are very easily broken into. Cash box and coin acceptor doors are not reliable, not only in their normal operation but especially under abuse by the player. This is common language among operators, the one that copes with the every day service call, sometimes so simple that

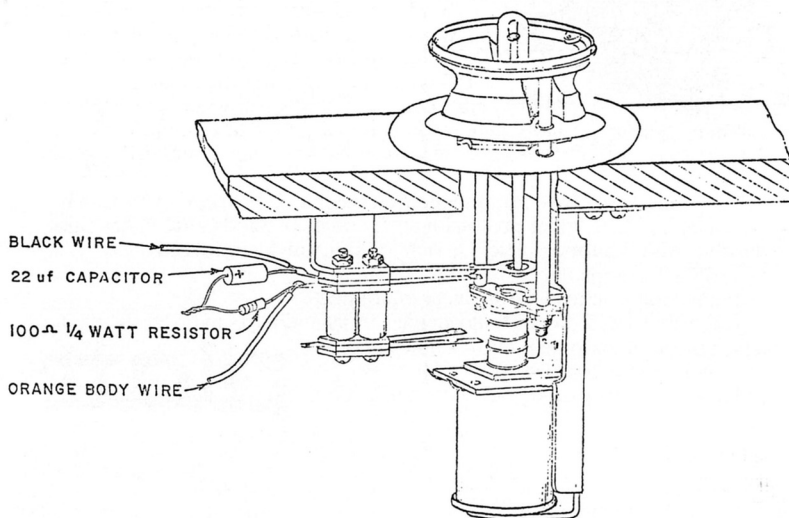
it should not exist to begin with. There are attempts made to improve equipment quality but actually very little is felt in the field as definite improvement on troublesome areas.

The cost of maintenance and cleaning the playfield, paradoxically, has raised considerably. Rubber rings just do not hold the play. Units fall apart and parts break in an alarming disproportion. After a game is bought, the operator is practically the only one that will have to cope with such burdens.

If the game has a good play appeal, the income mellows out such problems. But what if the game is not

a good one? (and there are several from every manufacturer) What can one do to get his initial investment back? Ask solutions from the manufacturers? Yes, but not always is it possible for the manufacturers to solve all problems. And so we have the operator with a game that becomes a pain in his route. A several hundred dollars piece of equipment that may never pay itself back; a newly released game used as a filler piece.

The basic principle of this and any business is profit. If a game does not gross well either because of bad play appeal or constant breakdown,



### JET BUMPERS

Add one 22 mf (6-30 Volt) tantalum capacitor (5A-9009) in series with a 100 ohm resistor (5A-9036) across each of the jet bumper input switches to increase the on time and improve performance.

Follow this procedure: Solder the negative lead of the capacitor to the switch lug having the black wire. Solder one resistor lead to the lug having the orange body wire. Make a "pigtail" connection between the positive capacitor lead and resistor

and solder as shown on attached drawing. Position components so as to avoid any shorts. Re-adjust switch so that closure occurs when ball is at mid-position. Switch adjustment is no longer critical.

**NOTE:** If desired, the performance of the Kickers can be improved by adding the same components to the Kicker input switches.

**WILLIAMS PART NUMBERS**  
5A9009 22 uf CAPACITOR  
5A9036 100 ohm RESISTOR

should one consider the subject over or try to correct and improve whatever it is, if possible?

Should the operator stand still when his \$1,400 machine (\$800 resale value) three months after being released to the market, grosses \$30 to \$40 a week or less? The answer seems to be a logical no! Based on such considerations I have decided to perform the modifications described in my article in *PLAY METER* Magazine (November 1978, AMOA issue) on how to improve power on Williams DC jet bumpers.

The pinball models I cited as examples where such modification

was remarkably effective were *Hot Tip* and *Lucky Seven*. I also mentioned that models such as *Contact* and *Disco Fever* did not need any power improvement in this area. Although I did not explain why, it seemed obvious to me that the knowledgeable operator would notice that on recent Williams models, the jet bumpers are so close to each other and to the surrounding rebound rubbers that increase in power is totally unnecessary.

After *Hot Tip* was being released to the market, Williams put out a bulletin (April 21, 1978) to the distributors, detailing a change to

improve jet bumper and kicker response but the lack of power was still there.

Before the article was ever published, several games on our route were modified according to the instructions and material suggested and no problem (except on the mechanics as I mentioned) were reported. Not only play increased (there were also modifications target-wise) but the games are still operating successfully on location for several months.

This does not prove that such modifications would not cause problems if not performed the way it is described, but it was assumed that the reader had the necessary background to pin-point any possible future malfunction since he was able to follow the instructions.

Changing the coil on the jet bumper (a 23-750 for a 22-550) with smaller resistance will draw more current through the driver transistor and also might generate a higher PRV pulse. A fault 1N 4007 as recommended or the use of a lower PIV diode such as the ones currently used in the games could introduce spikes in the system and damage part of the driver circuitry or interfere with the game operation. To determine the quality of semiconductors in the field is impractical and this type of malfunction does occur with games everywhere, to an extent that replacement of driver transistors, diodes and coils have become a routine work in the field. Not counting this type of failure being caused by the systems themselves.

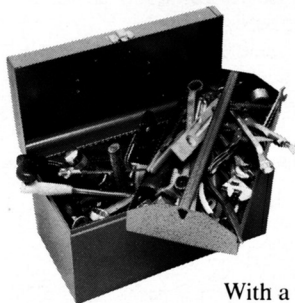
Unwinding the kicker coils, (23-750 to 23-600) instead of buying a new coil, was just a more economical way to achieve the same. Also the kicker did not need that extra amount of power.

The modification-improvement was concerned with play appeal and income increase and not with the intention to point or correct flaws in the Williams design. The concern on the part of the manufacturers in the total success of their products is very much appreciated by all of us in the field. Any changes made in the games by their owners whether through their own initiative or suggested by others, are solely their responsibility. I feel that if there are ways to improve any particular system to better the equipment, they should be performed.

*October 15, page 57 should read: SAUCER EJECTOR (No figure)*

The tension on the spring of the kicker mechanism should be adjusted to prevent the ball from jumping as it is ejected. Successive jumps will damage the playfield sooner.

# Where's the ! \* % screwdriver?



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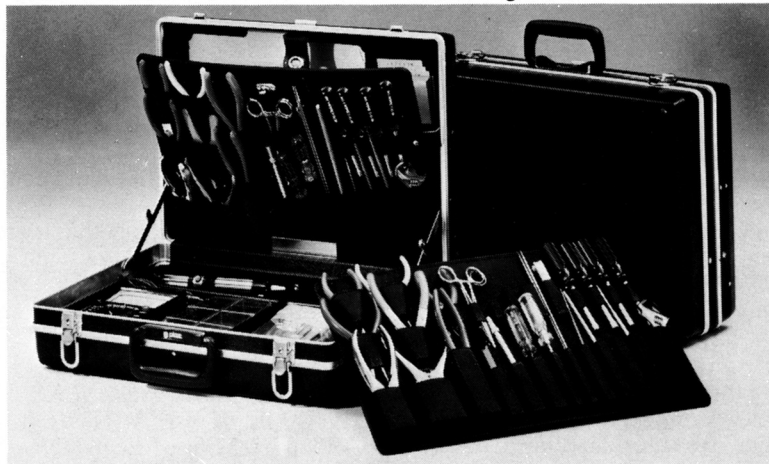
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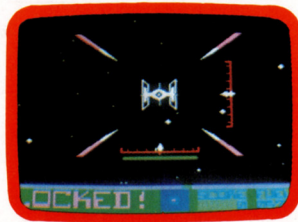




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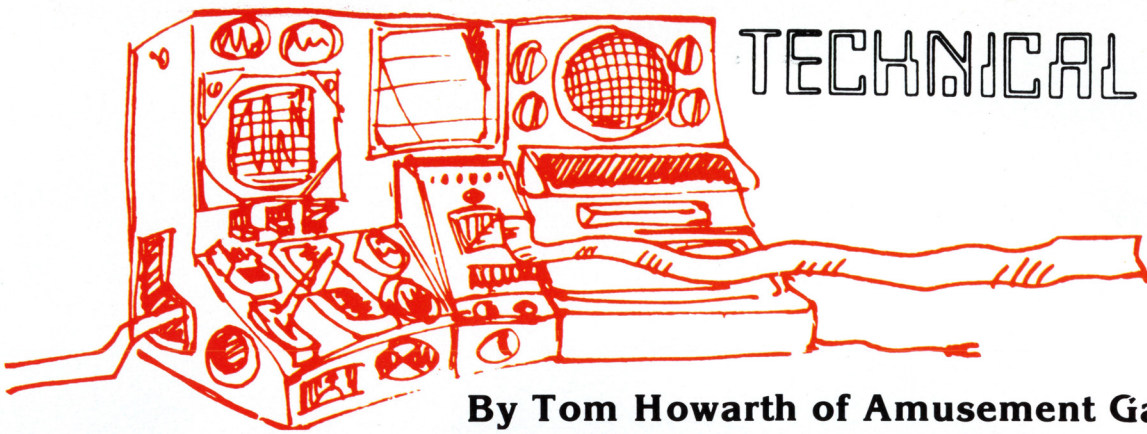


Enemy Return Fire



Score Table





By Tom Howarth of Amusement Game Services

## Adding color, it might be the packaging your old games need

There must be thousands of old video games in retirement just sitting in warehouses and shops. Some of these games still have some play appeal; however, they lack the window dressing that the newer video games have. Color, perhaps could be the answer.

Last spring I had a Midway TV Basketball in my shop for repairs. When it was up and running, I tried my first color experiment and was quite pleased with the results. My kids and their friends are a pretty good barometer for measuring the play appeal of a game. With me in the repair business, they get to play them all. I call them my Quality Assurance Department. As a black and white game, they ignored the TV basketball; in color, they wouldn't leave it alone.

I have found three methods for coloring the black and white screen. One for small areas, such as,

Breakaway bricks, Tennis/Hockey paddles, and score numbers use transparent pressure sensitive Graph-Tape by Chartpak, available from art supply stores. Two, for larger or tricky areas, such as, basketball players, baseball diamonds, or Clean Sweep dots use Spray Mark Transparent Color Dye by Magic Marker, also available from art supply stores. This product is water soluble so when the job is complete it should then be sprayed over with Krylon, Crystal Clear 1301, Acrylic Spray Coating which will allow you to wash the screen when needed.

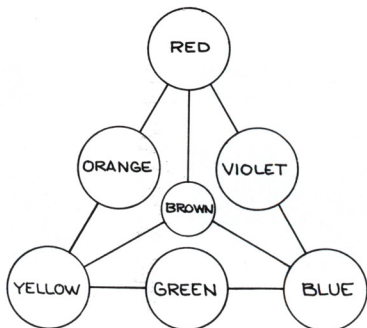
Spray Mark colors can be sprayed over each other and will produce a color mixing effect allowing you to do all kinds of tricks. See Figure One for the color triangle for color mixing results.

This product dries super fast and can be taped over for the second and third setups. To do an entire picture

tube in one color only, use a colored transparent acetate overlay. Just tape a sheet of this stuff behind your front glass. You can find it in art supply stores and plastic supply outlets.

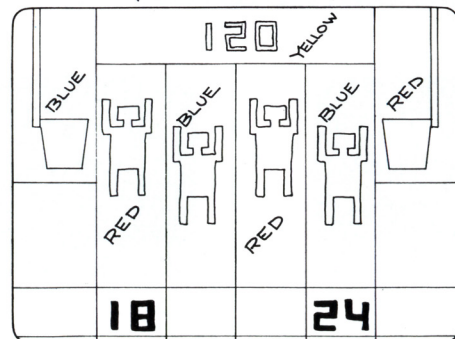
None of these products are very expensive. Ten bucks worth of graphic tape, four colors, should do at least ten games, twelve dollars worth of Spray Mark should do from two to five games (four colors) and three bucks worth of acetate overlay, one color, will do three machines.

When you set out to paint or to tape the CRT of a video game the screen should be squeaky clean and dry. The game should be on and warmed up for a half hour, and one should be satisfied with the shape and position of the video image. If there is a significant amount of TV adjusting required to obtain satisfaction, unplug the game and let it cool down for a half hour. When you again fire it up, if the picture grabs,



COLOR TRIANGLE

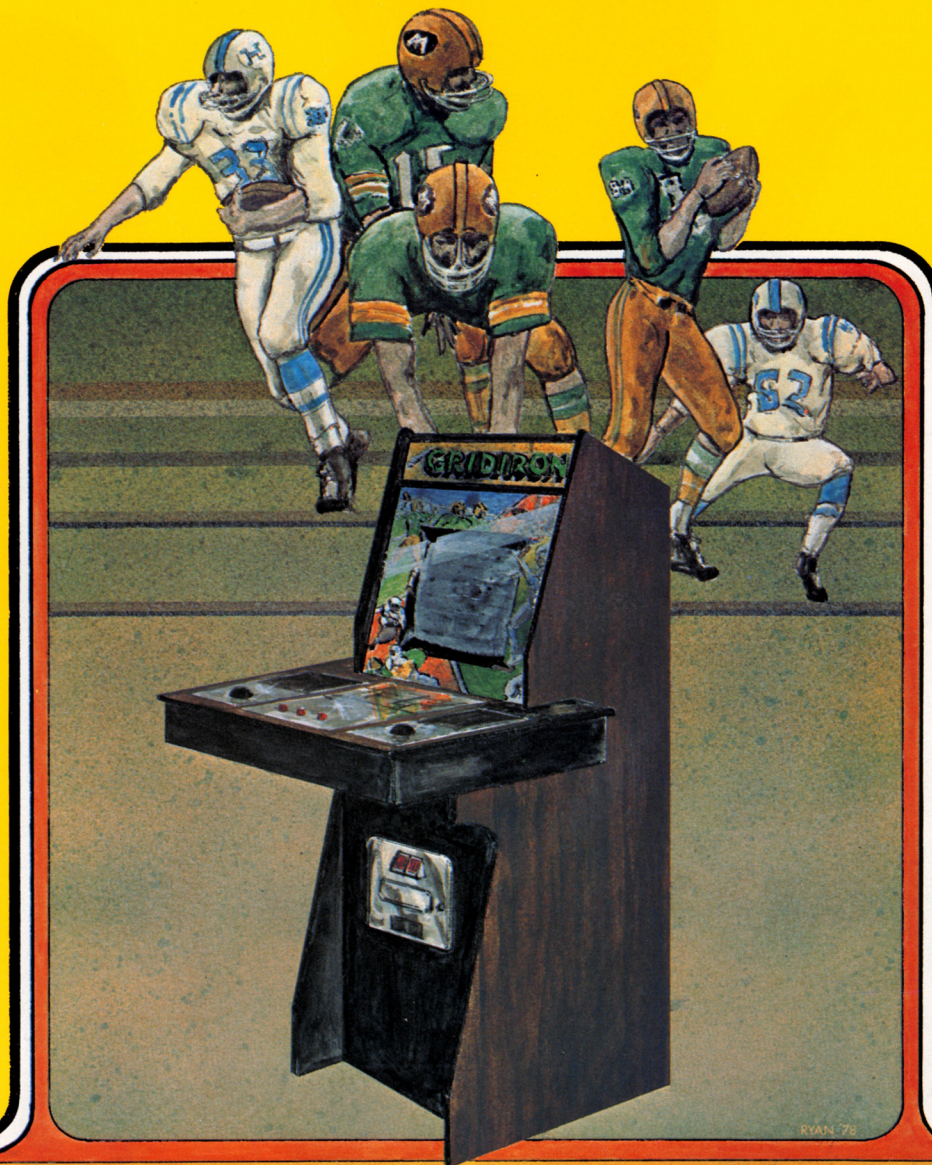
Figure 1



TV BASKETBALL

Figure 2

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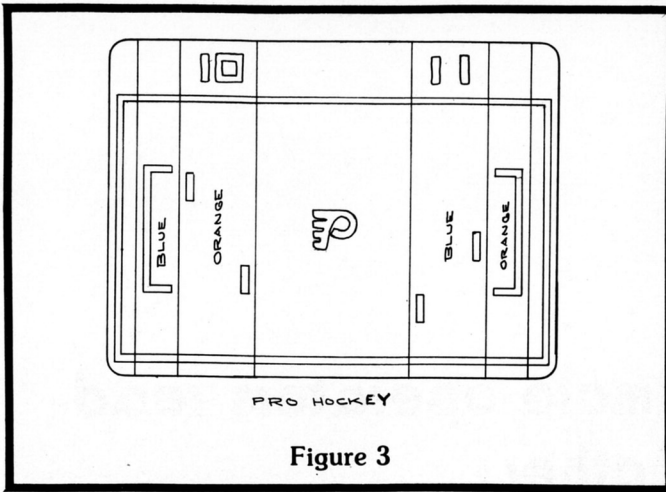


Figure 3

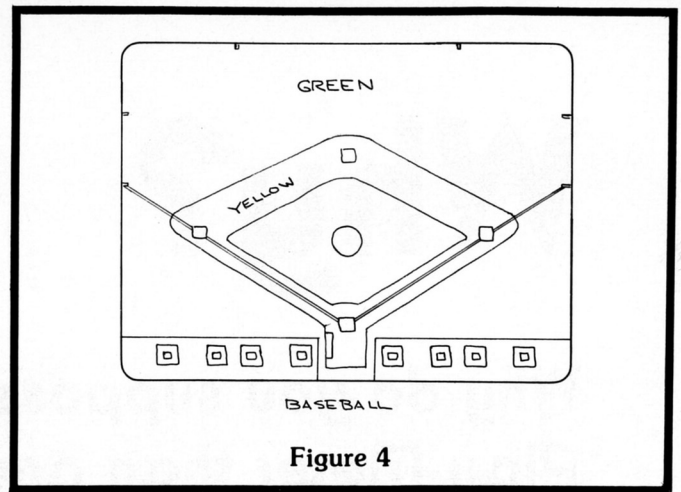


Figure 4

horizontal and vertical is okay, then let it warm up again. Even in the best monitors, the picture will drift around an eighth inch from cold to warmed up conditions.

If for some reason when cold the picture doesn't stabilize, adjust the TV until it does and hope for satisfaction when it warms up. Some of the older video games were never picture perfect even when they were brand new.

Understanding the play of a video game should come from the seat of the pants. Folks at leisure don't read directions. *TV Basketball* (see Figure Two) offers striped and solid players, but what goals are they shooting at and whose score is whose? The player is lucky if he can figure it out after the first goal is scored. However, if one team is red, the basket they are shooting at is red, and their score display is red and the other team's stuff is blue, the game is self-explanatory. Also the new color will draw the player to the game.

As for coloring *Midway TV Basketball*, (see Figure Two) the baskets, scores, and time have permanent areas. The players, however, move within specific areas and their entire area of travel should be colored. The lower limits of travel of

each player can be balanced via trimpots on the logic board. Reach through coin door to adjust, all game control pots counter clockwise, and coin twice. The upper travel limits of the players should be about the same. Use Spray Mark and masking tape to do this job. Spray on Crystal Clear when complete.

In Figure Three Williams *Pro Hockey* is shown. In my area, we are Philadelphia Flyers fans, so I drew a Flyers logo on a piece of contact paper, cut it out with an exacto knife, stuck the outside part on center ice, and shot it with Orange Spray Mark. A car window decal of your area's favorite hockey team should be semi transparent and would probably work okay. I made one team's paddles, score, and goal orange, Flyers' colors, and chose blue, the color of the team's greatest competitors, the New York Islanders, for the other. Spray Mark or Tape will do for this application. It should be pointed out that on some hockey games the center paddles are defensemen and on others they are shooting forwards.

For another example of video artwork, see Figure Four, Ramtek *Baseball*. Mask out score areas and spray the entire screen yellow and let dry. Mask out the ball diamond and

pitchers' mound. Shoot on Spray Mark blue green evenly till grass area turns to a beautiful kelly green. Numbers can be done with transparent colored tape.

Now that you have this exercise mastered and really want to try something cute, take on a Ramtek *Clean Sweep* (see Figure Five).

Mask and spray Player 1, ball number, Player 2, credit, and paddle areas separately. I suggest that you use the same colors for these that you intend to spray dots; otherwise, your end result may look like the Sunday funnies. Mask these areas over and proceed with the dots. Using half inch masking tape cover alternate rows of dots on the horizontal plane over the entire screen, set-up #1, and spray color. Let dry and then remove set-up #1 tape. For set-up #2 mask over alternate rows of dots on the vertical plane and spray color. Remove all masking tape and spray on Crystal Clear for protection.

On *Clean Sweep* the blue over-layer will have to be removed from the game. For an even neater effect remove game status lamps and replace front glass with gray smoked Plexiglass 1/8 inch thick, product number 2064.

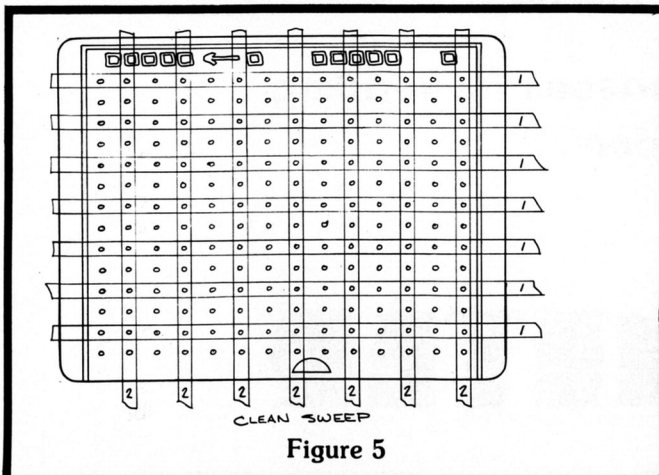


Figure 5

		SET-UP	SPRAY COLOR
BLUE	+	WHITE 1	YELLOW
GREEN	+	YELLOW 2	BLUE
BLUE	+	WHITE 1	RED
VIOLET	+	RED 2	BLUE
RED	+	WHITE 1	YELLOW
ORANGE	+	YELLOW 2	RED

Figure 5A

# Why?

**Why do you suppose more operators read Play Meter than any other industry-related trade publication?**

**We think it must have something to do with the fact that Play Meter is independently-owned and honest with its readers.**

**We are, after all, the only publication that evaluates pinball machines.**

**Not only that, our articles (such as the recent three-part series on business profitability) are thought provoking, useful, and written specifically for the operator.**

**And we cover more industry news than anyone else, month after month.**

**Then, of course, there's our "Technical Topics" section, which is written by independent technicians who have firsthand experience in the field.**

**There seem to be as many reasons for reading Play Meter as there are readers.**

# **PLAY METER**



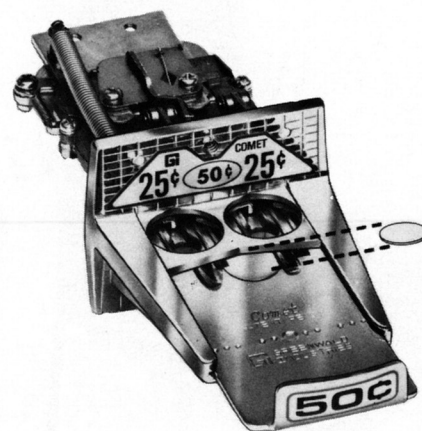
## Bionic horsewoman

The spectacular, bionic horse-woman graphics on the backglass is the attraction and the play action is the hook on Gottlieb's new four-player solid state flipper, *Solar Ride*.

The game has both a single and dual set of flippers and many playfield features which include plunger skill shots to pick up rollover multipliers in sequence before the ball enters the playfield. Another skill shot is a long diagonal to the upper right corner which returns the ball to the plunger for an additional shot at the top multipliers.

The player can also advance the multiplier by knocking down five drop targets on the left, midway up the playfield. The player can earn free games by knocking down the center red drop target last. When he eases the ball into the kickout hole at the left top of the game, the player also collects the accumulated bonus.

Currently in full production, *Solar Ride* is adjustable for three- or five-ball play and it is convertible to add-a-ball.



## Going from fifty cents to sixty cents?

A new tri-coin chute is now available for operators who wish to start at fifty cents (two quarters), then convert to sixty cents at no extra cost.

Basically, the new coin chute is a sixty-cent tri-coin model with a specially designed knock-out plug formed into the slide in the center ten-cent hole. The chute will operate at fifty cents until the plug is removed by the owner.

Removal is accomplished in a few seconds by turning the chute upside-down and driving the plug out of the slide through a hole provided in the bottom of the chute casting.

Additional slide bars which can be interchanged on this coin chute include 40-cents, 45-cents, and 75-cents. These can be used for special promotions, sales, price increases, etc.

## You would think 'Goliath'

*Hercules* stands six feet, eleven inches, has eighteen square feet of powerful action, and offers excitement and intrigue for pinball enthusiasts everywhere. Atari has announced that this spectacular giant pinball game will be available in the early spring of 1979.

*Hercules*, the largest flipper game ever to be produced, has exceptional appeal due to its play action as well as its size.

The visual impact of the game is certain to draw avid players and many new adventure seekers to experience the biggest pinball game. A cue ball rolling into action, double-size flippers and giant thumper bumpers set the mood of intrigue. The dynamic graphic presentation of the mythological hero of strength, *Hercules*, enhances the mysterious and alluring qualities of this game.

The game play highlights a series of bonus lanes and high scoring targets. There is a ball-to-ball memory and flashing extra bonus score targets that add to the excitement. Specially designed bumpers and targets together with the super action flippers give optimum ball speed and player control. Players achieve the "Path of Victory" by sending the ball up the right lane around and through the left spinning target lane as lights flash, the bonus advances, and the score increases. *Hercules* features challenging skill shots, highly responsive targets and sensational sounds that entice players of all skill levels.





## But will they let it land?

Bally Manufacturing has announced the availability of its newest flipper, *Supersonic*.

Based upon the Supersonic Transport theme, the exciting, colorful backglass and the seven new tones and tunes will set players in motion.

*Supersonic's* challenging playfield allows bonus scoring of from 1,000 to 20,000. One step, three step, and five step bonus advances can be obtained through drop targets, the bonus multiplier saucer, rollovers and a one to five top lane memory sequence.

Completing the 1-5 top lane sequence at any time scores 25,000. The top lane sequence incorporates increasing scoring potentials which are adjustable for Special.

Drop targets are also adjustable for points, extra balls, and Special.

The free-ball Gate is another favorite feature on Bally's *Supersonic*. This allows for increased scoring potential via the shooter tip.

# ChooZ

Computer Kinetics Corporation of Westlake Village, California has recently introduced a new counter top game called *Chooz*.

*ChooZ* is a one- to four-player game in which the machine randomly selects two numbers between 0 and 9. It then displays a "Middle Flashing Number." The player must stop the Middle Number when its value is between the first two numbers. If the number is stopped inside the computer selected numbers, the player wins, otherwise the player loses.

*ChooZ* comes in the same convenient package as the company's *Vega 21*, measuring 17 inches wide by 17 inches deep and 9½ inches high.

The game's "Super Plasma Display" and lighted keyboard switches tell the players exactly what is happening at any given time while the game is being played.

For strategic players, the "Middle Flashing Number" repeats in a sequence. As the middle numbers "Flashing" speed slows down, players may note where their desired number appears in the sequence, and press the stop button when the number is between the machines two selected numbers. The excitement mounts when the flashing number speeds up, at higher point levels.

When *ChooZ* is not being played, customers are attracted by the Banorama display, which is a smoothly moving banner message, as well as a melodious sound at the end of each message. The tone may be turned off by a rear switch when desired.



## Going for the jugular

Stern Electronics, Inc. has begun production of its latest solid state pinball machine, *Dracula*.

*Dracula* includes a number of features which will please both the operator and the player: an upper flipper directly off the initial entry that bats the ball into a set of four drop targets, a bonus multiplier, three jet bumpers, one stationary bumper, an eject hole, a spinning target leading to the top lane, a modified front door that helps coin entry, a modified sound board with the addition of three potentiometers, allowing the operator to adjust the sound and pitch.

Other player features on *Dracula* are a special when lit feature in both the left return lane and on one target (operator-adjustable for extra game or ball). There is also the built-in player feature of an extra ball when lit on the right return lane.

# Freedom of Choice

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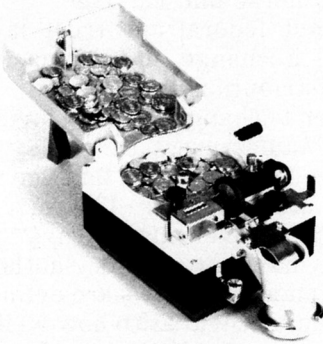
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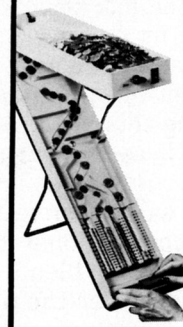
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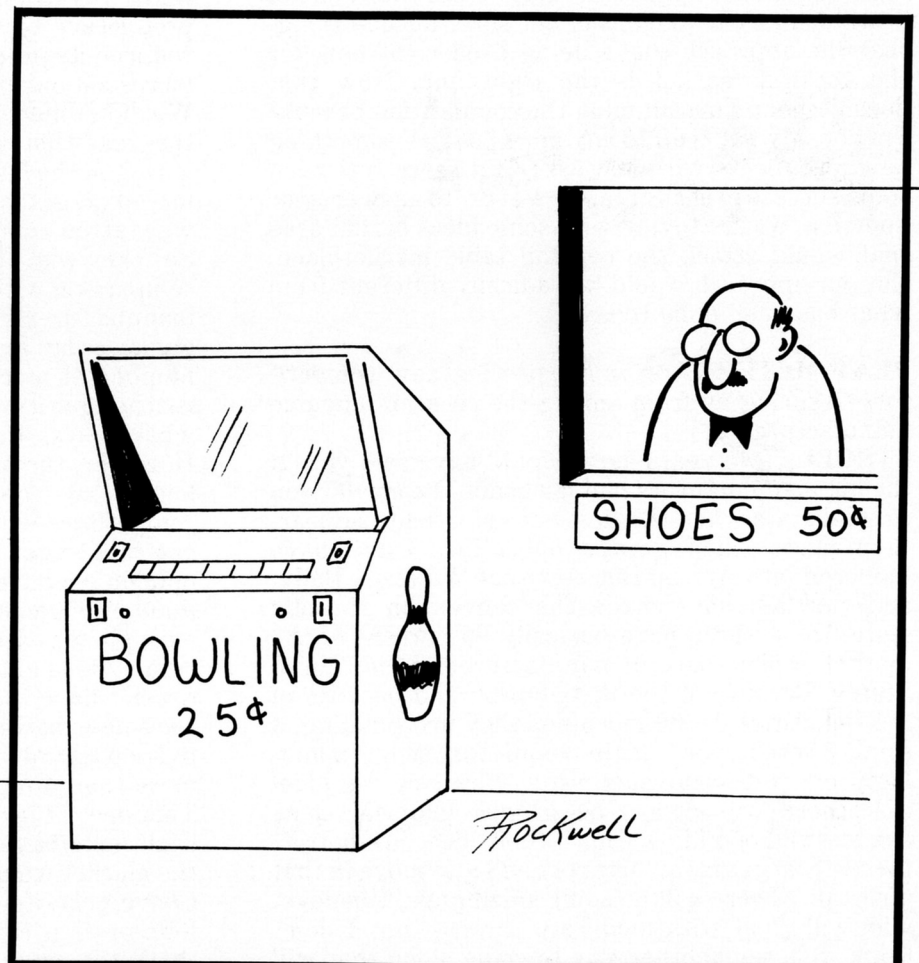
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wide-body market has been extremely successful. I now feel that the wide-body pinball game has a significant niche in the marketplace. I don't believe they will ever make up 100 percent of the pinballs on location (or at least for the next five years). But I do believe our competitors, Bally and Gottlieb, will do a wide-body game this year. And whether they stay with it or treat it as a novelty piece, I haven't the slightest idea. But the intention here at Williams is that we will continue to build both the wide-body and the conventional machines. And as the market goes, we'll blend our production schedules to meet whatever the demands are.

**PLAY METER:** Was the wide-body game something that could have only happened with solid state?

**STROLL:** There is nothing that can't be done in electro-mechanical that is being done in solid state. The reason you never saw memory features on an electro-mechanical machine, for instance, was simply because the speed of electro-mechanical is much slower than solid state. And in order to get those memory functions in the machine, the backbox would have had to be about 2½ times the size it is. And, of course, the cost would have been significantly higher.

**PLAY METER:** Another recent change in pinball cabinetry is with the cocktail tables. Do you think Williams will eventually get into that market?

**STROLL:** I've looked at it. The cocktail market is definitely a real market. Exactly what that market is still isn't clear to me. I'm not sure, for one thing, that the approach that's being used right now for the cocktail market is the right one. Now that doesn't mean I'm slamming the competition because I'm not. My hat is off to anyone who tries something new and meets with success. And there has been some success in that area. However, to answer your question, we are toying with some ideas in that area that would attack the cocktail table marketplace. But our approach would be radically different from what has been done today.

**PLAY METER:** Are you expecting new competitors to spring up from among the cocktail pingame manufacturers?

**STROLL:** Two years ago I would have said yes. If the big manufacturers had not made the conversion to solid state when the first ones started to appear, then many small garage operations could have flowered into Ataris. But now that Williams, Bally, and Gottlieb have made the conversion to solid state, those three have basically 85 percent of the market of pins that are manufactured in the United States. Because of the distribution and because of the quantities of the machines they are building, I think there's very little room for small manufacturers to become successful. However, I do feel that there will always be people who will come along with good ideas. But if their ideas are better, then the larger manufacturers will also move in that direction. There will be some small guys, I believe, who will meet with moderate success, but I don't think we'll see another guy to come along that will

challenge the big three.

**PLAY METER:** With regard to the distribution of pinballs, it seems that protected territories have gone the way of the horse and carriage. Was this due to concerns about federal anti-trust laws or does it just reflect a change in manufacturers' attitudes towards distribution.

**STROLL:** We haven't changed our distribution plans that much. Manufacturers cannot say to a distributor "You have this territory, and you're not allowed to go out of it or else I'll yank your distributorship." The government says that's illegal. So what we have are factory-authorized distributors. Their general locations are defined by them. And it's defined by them as to how well they can support the operators in their area. Under no circumstances are we going to restrict distribution, and that's because of the laws.

**PLAY METER:** Now that solid state pinballs have been with us for awhile, can we expect to see a drop in the numbers of machines that will be produced?

**STROLL:** There are two sides to that—the number of different models that are being produced and the quantities of each of those models. In August of this past year, the pinball industry in the United States reduced the output 25 percent. Now that was more a parity than anything else. Bally had the major and lion's share of the marketplace Gottlieb had come on stronger than anyone else right behind Bally. And Williams was a distant third. When August hit, Bally was still number one, and they reduced their production by about 37 percent. Then Gottlieb reduced its production by about 24 percent. But we increased our production because we were prying. We didn't meet with the success in the early part of the year that we had hoped to, but we did meet with it in the last six months of the year. We had an incredible six months. And that was mainly because we started coming out with some excellent games. So the way the industry sits right now, in comparison with June of this past year, the pinball manufacturers as a whole are building about 250 games a day less than they did back in June. The number of machines that are being produced has reached parity and is not significantly higher than what it was during the electro-mechanical days. However, the major difference is that there are no longer any one- or two-player machines. Our competitors will probably build six, seven, and (in one case) eight new models during 1979. But in my opinion we have got to be in a position to limit the number of games an operator has to buy. There are a couple of reasons for that. One, it helps keep the resale value of these machines up. And, two, a guy doesn't have to turn around every week or so and see a new machine coming out. Williams is planning to keep a hard line on this matter. We will not build more than 4 or 4½ conventional machines a year. That doesn't include the wide-body, though. I think if all manufacturers continued on that basis, then the market would remain healthy for years to come. Conversely, if a manufacturer is building more than four or five conventional models in a year, then that's too many.



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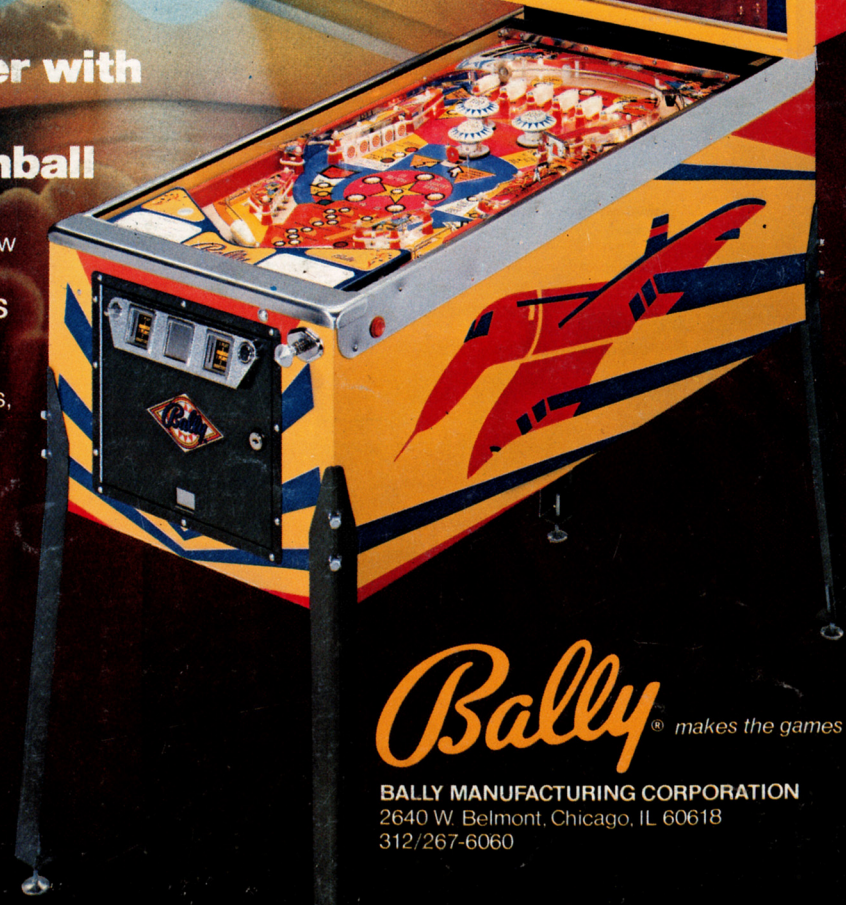
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