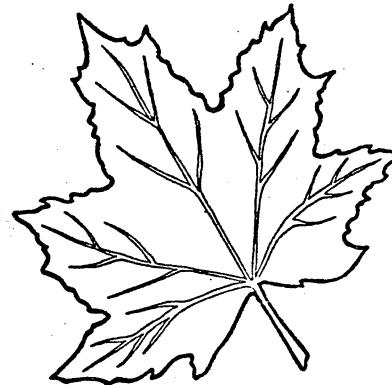


# CROWN CRIER

Issue 28

September 20, 1974



## September

The goldenrod is yellow,  
The corn is turning brown;  
The trees in apple orchards  
With fruit are bending down.

The gentian's bluest fringes  
Are curing in the sun;  
In dusty pods the milkweed  
Its hidden silk has spun.

The sedges flaunt their harvest,  
In every meadow nook;  
And asters by the brookside  
Make asters in the brook.

From dewy lanes at morning  
The grapes' sweet odors rise;  
At noon the roads all flutter  
With yellow butterflies.

By all these lovely tokens  
September days are here,  
With summer's best of weather,  
And Autumn's best of cheer.

Helen Hunt Jackson



## SOLDER SHCOOL . . . . .Ray Stevens

One hundred and eight CROWN employees, and nineteen subcontractors completed the recent four-hour solder school with flying colors. Although ten people had never soldered before and some had soldered very little, the class went well with only a few falling asleep.

Covered in the course were a few strange terms such as wicking, insulation gap, heat transfer, wetting, flow, contour, fillet, etc. Most were found to be simple and not too hard to remember.

It was not until the module subcontractors started coming in that we discovered a whole new foreign language--common only to fellow subcontractors--being spoken. If you listen, you can hear such phrase's as "the little doggie bone in the corner of the board", "I need a kidney next to the green dot", "One of my glasses with the black stripe broke", "I was short four legs", "I sure hate to install those 'A'-'M'-'P' 's", "Those spider legs bend so easy", "Don't get the I and the cross mixed up", "Those little green fish eyes sure break easy".

It was said that someone heard the instructor at the end of the class shaking his head and muttering as he went down the hall, "I hope you never get solder to stick."

## Industrial Selling

The Industrial Sales Division is relatively new in the history of CROWN sales. CROWN has been actively pursuing the Industrial Market for only the past year and a half. The Industrial Market includes all sales that are not covered under standard Hi Fi sales or under professional audio dealerships.

Typically, Hi Fi sales represent stores such as Stereo Scene in our area. The professional audio represents a larger store similar to Audio Distributors in Grand Rapids and other companies in the area who sell and install our equipment in various buildings and concert halls across the country. The most notable installation in this area is the Notre Dame Convocation Center.

The Industrial department on the other hand sells amplifiers and tape recorders to Industrial users for the manufacturing process they desire controlled by one of our amplifiers. For instance, the new punch press in the machine shop required a compressor and an air cleaner for the compressed air. If CROWN was in the air compressor business and the air cleaner business, we would sell the customer a cleaner for the compressor in their production operation.

Another area in which the Industrial department sells is to the manufacturer that uses our amplifiers or tape recorders in his final end product.

## Industrial Selling (cont.)

For instance, a trailer manufacturer in the area would buy a tape cartridge player--if we manufactured tape cartridges--for inclusion in his mobile home. In our case, our customers buy the D-60 amplifiers and the 700 transports. The Dynalec Company buys 700T transports to include on a troupe entertainment system for a submarine or aircraft carrier. The Voice Identification Labs buys a 700T to make voice prints--actual photographic prints of the voice characteristics of a human--for their customers.

One of the reasons the Industrial department is exciting work is because of all the different applications that our standard products can be used for. These applications are widely varied and quite often need the engineering expertise of Dave McLaughlin as well as our design engineers for practical application. As a personal note, I find it enjoyable to work at CROWN where the spirit of co-operation and understanding prevail.

--Mike Stoll

/////////////////////////////

From our Safety Committee. . . .

The workplace is filled with many chemical fumes, dusts, mists, etc. Some are very harmful. Many workers are unaware of the effect of these chemicals on the body.

Industrial gases may be health hazards

because of the direct toxic effect on the body or because they take up space in the atmosphere where oxygen usually is and thereby deprive the body of oxygen.

Some gases are irritating or damaging to the lungs. How soluble an irritant gas is in water determines what part of the lungs will be injured. If the gas is relatively insoluble, it may reach as far as the air sacs before causing a reaction. A slightly soluble gas may dissolve in the water vapor of the air tubes and sacs and cause severe burns. Highly soluble gases may cause spasms which prevent the gas from entering the lungs.

Dusts usually cause disease only in the lungs. The smaller the particle, the further down into the lungs it can go. Also more dust will be retained in the body resulting in more serious illnesses.

Some industrial chemicals such as ketones may cause drowsiness or dizziness. Exposure may cause depression of respiratory functions.

Some industrial chemicals are narcotic and cause a weakening of judgment and control. Some cause alterations in the tissues of liver, kidneys and even the brain after excessive exposure.

Safety is the responsibility of each of us. Let's think twice before smelling a container of unknown contents or using a spray can of contact cement in a confined area. Whenever you must use

Safety (cont.). . . .

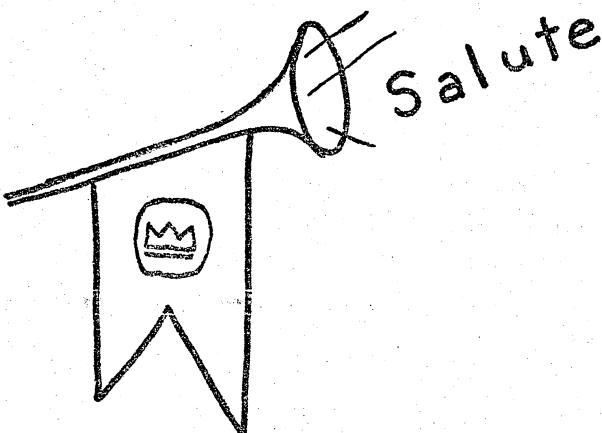
chemicals or dusts be sure you are adequately protected and in a well-ventilated area. We'd like to keep you around awhile.

---John Miller

@@@@@@@

What are those strange things you keep "up your sleeve", Ross?

@@@@@@@



Larry Dennison is the subject of our salute this month in the CROWN Crier. We want to say a big thank you to Larry's taking care of "his babies" (as some call them)--the xerox machines. We're sure it takes a lot of patience--and he's always so prompt in coming to our rescue when necessary.

Thanks, Larry, for your willingness to help with some very necessary equipment!!

@@@@@@@

Eternal life once kindled in the soul glows undimmed forever.

The Scene at Sales. . . . Donna Martin

A few things have been happening in Sales this past month. We lost one and a half people. First, I will explain the one. . .

Frances Griffin left not only our department but the whole state of Indiana. Her husband John, former custodian, took a job in Chicago, Illinois--so Frances went, too. She left quite a hole here, but slowly it is being refilled.

The half person I was referring to is Karen McBrier. She really is a whole person, but only here half of the time. She goes to school most of the day, but is here enough for everyone to feel her presence. She has also taken on another job (commonly called moonlighting). If you happen to be in the vicinity of a Northwood football or basketball game and see a black panther walking around, you'll see Karen in action.

Sales pulled another surprise -- this time a surprise bridal shower for Donna (Miller) Martin, who was completely unaware of the whole thing. Because it was a bridal shower, Donna was dressed from head to toe in tissue paper the rest of the girls had made to look like a bridal gown. The fashion designers were everyone in the office who attended. Donna was not only surprised but very happy.

And now for a little news from Service. . . Ted Lenox has left us for a short while to take a Bible study course at Grace Seminary in Winona Lake.

# LADIES

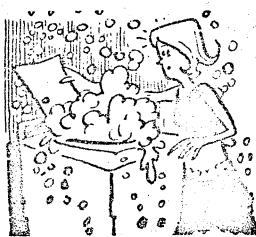
## BACK TO SCHOOL - QUIZ TIME



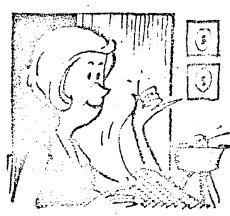
1. To remove spots, clothes should be (A) Washed repeatedly, (B) Washed with extra detergent, (C) Soaked for a few minutes in a liquid detergent?



2. Starch should be used (A) with the detergent, (B) with the bleach, (C) in the last rinse?



3. Adding more detergent to a wash will (A) Save money in the long run, (B) Cost more but clean better, (C) Have little effect?



4. If clothes need mending, it is better to do it (A) Before washing them, (B) While they're still wet, (C) After washing?

Hand your answers into me. YOU MAY BE THE WINNER !



SMILE!

SMILE!

SMILE!

FOR EVERY MINUTE YOU ARE ANGRY

YOU LOSE SIXTY SECONDS OF

"HAPPINESS"

KMM

Amateur Radio: Where Do You Start?  
by Don Florea

Many people have asked what requirements are necessary according to the FCC in order to obtain an Amateur License. Naturally, the requirements depend on the type of fun and knowledge you wish to obtain. For instance, there are five classes of licenses from simple (Novice) to extremely difficult (Extra), each giving you a slightly different area for research and skill. Knowledge of three basic areas are needed for any license: code, radio theory and U.S. regulations.

In the novice class, a person must be able to transmit and receive Morse Code at five words per minute (25 characters) and know a minimum of theory and of U.S. regulations. The Novice license is the easiest to obtain. With just a little study success is almost always present. Since it is the lowest class license, it also has the least amount of "operating privileges"--only code on certain band segments.

The next step up and almost totally for the experimenter is the Technician Class. This class has the same required code speed as the Novice Class, but much more technical knowledge is needed. The Technician enjoys more operating privileges than the Novice, including the ability to communicate by the use of voice communications. One limitation that he does have is the lack of lower frequency band use. The most common bands (80-40 meters) are off-limits to him.

The third and most common is called the General. The General has the combined bands of the Novice and Technician plus enlarged areas around the Novice portions. The qualifications for the General are 13 words per minute (WPM) and passing of the Technician theory test. If you have practiced a little on your code--it's easy.

The fourth step toward the top is the Advanced Class. The Advanced Class is the same as the General except for the theory-regulation test. With the Advanced license, another small segment of each band is open for people just like you.

The Extra class, which is the top, is a goal which most amateurs never obtain or even attempt. The Extra offers all amateur privileges that can be given under law. Not only is 20 WPM required, but a still harder theory and regulations test must be taken. The Extra class is the top of the tops -- Such a high goal, that most amateurs just dream and laugh at the thought of going for the top.

Where do you fit in? Or just where do you start? I suggest at the beginning. The Novice class will help you get your feet wet. And remember--the longest trip can only be started with the first step. How about it?

## LAST MONTHS

### Secret Mystery Message

To get the proper sound from these code symbols, use "dit" as a period and "da" as a dash.

So "A" is dit da

"B" is da dit dit dit

Q. - .. U E S. T I O - N.

A -	I ..	Q ---
S - ..	J ---	R ---
C ---	K --	S ...
D --	L ...	T -
E .	M --	U .. -
F ...	N - .	V ... -
G -- .	O ---	W - -
H ... .	P - - .	X - - -
	period - - - -	Y - - -
	questionmark - - - -	Z - - - -

w - H. A I ! S. T H. E. D. !

F. F. E. X. E. N. C. E. B. E. T. W. E. E. N.

A. G. O. S. S. I. P. L. E. R. A. N. D. A.

B. U. Z. Z. A. R. D. ?

A. N. S. W. E. R.

I H. E. B. U. Z. Z. A. R. D. W. A. ! T. S.

U. N. I. L. A. S. E. R. S. O. N. ! S.

D. E. A. D. B. E. E. O. R. E. H. E. S. D.

C. K. S. A. S. E. R. S. O. N. A. P. P.

A. I. i - - -

## Secret Mystery Message

A . -	K - - -	U . . . -	Comma - - - - -
B - . . .	L . . . .	V . . . . -	question mark . . - - -
C - . - -	M - -	W . - -	
D - - .	N - .	X - . . -	
E .	O - - -	Y - . - -	
F . . . - -	P . - - -	Z - - - -	
G - - - .	Q - - - -		
H . . . .	R . - -		
I . .	S . . .	period . . . . -	
J . - - -	T -		

Answer next month.

### Between the "Lines" by Marcia Putz

You see the same familiar faces every-day at CROWN. You may smile or say, "Hello," to those people but do they strike you as individuals having their own ideas and different characteristics? It can make life more interesting to know each person's likes and dislikes.

A habit as simple as collecting "odds and ends" could lead to a most meaningful friendship. It seems that everyone saves items--they could be of great monetary value or of a sentimental value.

Janet Cook has put her home back into the style of the 1800's. She refinishes antiques to fit her personal tastes and needs. Her assortment of antiques goes from large pieces of furniture to objects as small as horse blanket pins.

Tom Szerencse likes power. He has made himself a scrap book full of photographs that pertain to train engines and railroad yards. Tom also has kept pictures of all the cars he has owned and then demolished!

Sandi Neff loves to travel. From the many places she has visited, she has key chains to show for it. Sandi even bought a key chain to prove she was at a Cincinnati Reds vs. Los Angeles Dodgers ball game.

Mary Saxton is interested in people, new places, and unusual customs. She

collects "National Geographic Magazine" and "U.S. News and World Report". From old to new, Mary can almost put herself in any country by reading articles and looking at pictures that are provided by "National Geographic."

Vern & Shirley Searer are almost overcome by wild life. Their small apartment contains over 60 plants!

And for you who collect unpaid bills, it may be refreshing to get involved with others' interests and ideas. . .

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

### Engineering News by Randy Lehr

The Engineering Department has had an interesting summer. One of the more noticeable features of this summer has been the number of people in and out of the department. In the way of summer employees, we had our old regulars-- Page Ong and Brad White--back with us. Two new summer techs, Ned Kaiser and John Groves, were on hand to help out this summer. The hardest part of fall is giving up all this extra help. We really appreciated it this year and we look forward to next summer with a growing list of work for them.

Other people moving in and out of the department include Jim Marks who is taking a leave of absence to complete work on a degree at Bethel College.

Don Spragg of HCJB was with us for several months and has now returned to South America for a short time.

Mike Axman of HCJB is now with us for several months.

Engineering News (cont.) . . .

We would also like to welcome Ben Miller to our engineering staff. He comes to us from Fort Wayne. Tom Szerencse has also joined us from Set Rec.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

????? by Lou Murphy

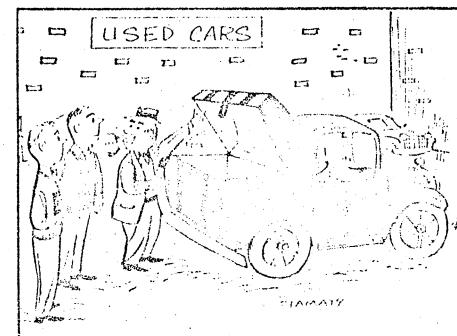
The catalog--isn't it a great place for a working gal to shop? After working all day, I go home and fix up some kind of supper, you know--a T.V. dinner for each of us or a bologna sandwich. (I really like to cook, and one of these days I'm going to try it.) Anyway, after supper is over and the dishes (ugh) are finished, I like to go in and pick up the new catalog and start thumbing through it. Sometimes I put x's beside all the things I would like to have. Other times I get out my notebook and put down all the numbers of the items I want and date them for the future, so that all I have to do is pick it up when I get ready to buy that particular item and call my order in. And ALWAYS I forget it when the time comes for me to buy something and I run over to the shopping center on my lunch hour and buy it there. Yes, sir, those catalogs are sure great for a working gal. . .

I bought a real bargain a couple months ago. I went to this garage sale and they had an electric skillet on sale for \$3. Can you believe it? Just \$3! "H'mmm, now that's a buy!" I thought to myself. So I had the lady plug it in

to make sure it would heat--(this kid's no dummy, you know) and when I saw it was hot, I told the lady I would take it. Well, last week end I was looking through this vast cold space in our basement, sometimes referred to as a freezer, and I found this package of delicious looking stew meat. My husband loves stew, so I decided it would be a great time to try out my new skillet. So I put the meat and other little goodies into the skillet and put it on simmer so it could cook all day and be extra tender, and then I went out to the barn to take care of some chores. You guessed it--while I was out there my entire house filled up with gray smoke. It seems the skillet heats all right--it's just that it has only one temperature--VERY HOT!!!

Hey--did you hear? I delivered 11 baby piglets for our mama sow last week. What an experience! I won't go into detail here, but it really was quite neat. So if any of you have need of my mid-wife qualifications, I could probably be hired at a very nominal fee--which when translated means--forget it! That one time was enough.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx



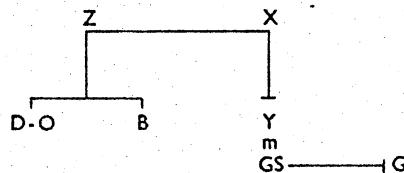
... and look at this large roomy trunk!"

Answers to Issue 27's  
Problems

Date

## 75. Cousins and Uncles

From B(1) and B(2) we can draw the following diagram:



Z is B's father, X is Z's brother, Y is X's son and G's brother-in-law. And GS stands for George's sister. (This diagram accounts for six of the seven people.)

Consider now: G(1): B is D-S's cousin.

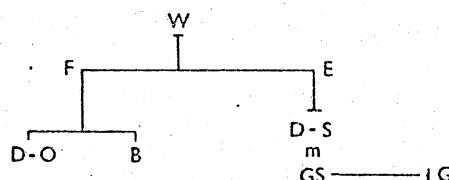
D(2): E's son is D-S.

E(2): My father is W.

F(1): My nephew is D-S.

The only combination that will fit these facts and the diagram is for Y to be D-S, for X to be E, for E's father (not represented in diagram, so that he must be the seventh man) to be W, and for Z to be F.

Our diagram now looks thus:



Consider E(1). There are two sets of brothers, E and F, and D-O and B. D and D-K-P cannot be E and F, ∴ D must be D-O and B must be D-K-P.

From D(1): F must be B-W (For F is D's father).

From A(1): A must be D-S, and G must be W-O. (there are no other brothers-in-law).

By elimination, E must be S-U, and C must be W.

Complete solution is therefore: Alf, Door-Shutter; Bert, Door-Knob-Polisher; Charlie, Worker; Duggie, Door-Opener; Ernie, Sweeper-Upper; Fred, Bottle-Washer; George, Welfare Officer.

Charlie is the father of Ernie and Fred. Fred has two sons, Bert and Duggie. Ernie's son, Alf is married to George's sister.

**Volunteers.** Sawing 2-yard logs produces a number of  $\frac{1}{2}$ -yard logs, divisible by 4; sawing  $1\frac{1}{2}$ -yard logs, divisible by 3; 1-yard logs, divisible by 2. Pastukhov's team's 27 logs is not divisible by 2 or 4, so it is the  $1\frac{1}{2}$ -yard log team of Petya and Kostya. The team leader is Petya Galkin, so Pastukhov's first name is Kostya.

## ANSWERS TO QUIZ NO. 1

1. Yards in 1 mile.
2. Pounds in 1 ton.
3. Square yards in 1 acre.
4. Acres in 1 square mile.
5. The square root of 3.
6. Centimeters in an inch.
7.  $\pi$ —the ratio of the circumference of a circle to its diameter.
8. Days in a leap year.
9. The logarithm of 2 to the base 10.
10. The year in which Christopher Columbus found land (in the Bahamas) by sailing west from Spain.
11. The logarithm of 3 to the base 10.
12. The logarithm of  $\pi$  to the base 10.
13. 1.6 kilometer = 1 mile, and 0.6214 mile = 1 kilometer.
14. The square root of 2.
15. Cubic inches in 1 cubic foot.
16. Ratio of the sides of a right-angled triangle.
17. Feet in a nautical mile.
18.  $62\frac{1}{2}$  pounds is the weight of 1 cubic foot of water.
19. Degrees in 1 right angle.
20. 88 feet per second is the same as 60 miles per hour.

**The Number on the Tomb.** The lowest common multiple (LCM) of a set of numbers is the product of their distinct prime factors, each taken the greatest number of times that it occurs in any one number. For numbers 1 through 10 the LCM is the product of:

$$2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 7 = 2,520.$$

The LCM of 1 through 10 equals the LCM of 6 through 10. In general, the LCM of 1 through  $2n$  equals the LCM of  $(n+1)$  through  $2n$ .

## Struldbrugs

The discovery of an unpublished manuscript of Lemuel Gulliver's throws some new light on a question of Laputan population.

'Towards the end of my visit to Laputa', says Gulliver, 'I allowed myself the liberty of pointing out to the King that if the struldbrugs were permitted to live for ever, being immune from death except by execution and having their numbers continually increased by fresh births, the time must inevitably come when there was no space left on the island for ordinary mortals, so that the race would die out and be replaced entirely by struldbrugs. His Majesty was much struck by this prognostication, which he was pleased to regard as a calamity, and asked whether I had any proposal for avoiding it. I submitted to him that the struldbrugs should be put to death on reaching the age of three score years and ten.'

'His Majesty thereupon went into a fit of meditation lasting for three days, and on emerging from it issued a proclamation which admirably illustrates the mathematical subtlety of his mind. It was enacted that whenever a struldbrug was born a scroll should be prepared for him and retained in the Hall of Records. On the struldbrug's day of birth and every subsequent birthday the Court Mathematician should choose at random a letter from the Laputan alphabet and write it on the scroll. When the scroll contained every letter of the alphabet the struldbrug would be quietly put to death. As some compensation it was enacted that a struldbrug could not be put to death for any other reason.'

'I was informed by the Court Mathematician himself that the effect of this decree was to make the expectation of a struldbrug's life between 70 and 71 years. Thus the King attained his object without incurring the odium of sentencing any particular subject to death at a specified time, or in any way violating the principles of humanity and statesmanship for which he is so justly famous'.

How many letters are there in the Laputan alphabet?

## J/3

'Considering that there are only 365 possible days to go round among millions of people', said Peter, 'it is rather funny that one doesn't meet more people whose birthday is on the same day as one's own'.

'That reminds me', I said, 'How many people are coming to your birthday party?'

Peter told me.

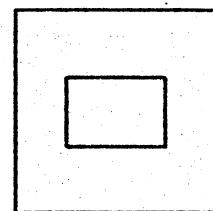
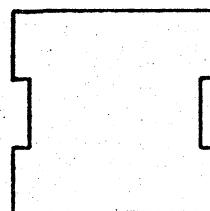
'In that case', I said, 'The chances are that two of them at least will have the same birthday'.

'What about leap-years?' asked Peter.

'Let's ignore them and make it rather easier'.

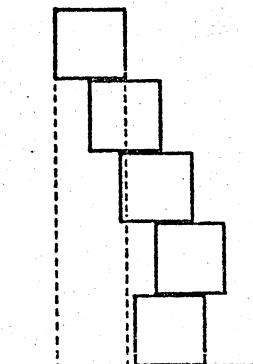
How many people at least were to attend the birthday party?

## C/8



How good are you at visualizing solid objects from blueprints?  
Draw the third elevation.

## C/9



Can you place one cube upon another, upon another, etc., until the plan view of one of them lies entirely outside the area of the base cube?

## TAX TIPS, ETC.

### TIME FOR A CHECKUP—

#### How a Social Security Review Can Pay Off Big

Every year the Social Security Administration posts everyone's Social Security earnings for that year. With the switch to computers and the huge volume of paper work involved, some errors are bound to creep in. So it's a good idea for you to check the accuracy of your earnings record in the Administration's files. If there's a mistake, you can have it corrected.

→**DON'T WAIT TOO LONG→** Generally, an earnings record can't be corrected if the checkup request is made more than 3½ months after the year in which wages were paid or self-employed income earned. Tip: A checkup at least once every three years is the wisest procedure. Here's—

→**HOW TO GO ABOUT IT→** Get a postcard Form OAR-7001 from your local Social Security office. Fill it out and mail it to the Social Security Administration, Baltimore Md. You'll shortly receive a statement of the earnings and number of quarters of coverage with which you have been credited. If you think a mistake has been made, follow up by filing Form OAR-7008, Request For Correction of Earnings Record.

by Ross Swinehart

### Statement of Earnings (W-2) for Terminated Employees

For an employee whose final wages were paid on or before July 22, 1974, a Form W-2 (Statement of Earnings) should have been furnished by August 21, 1974. For employment terminated after July 22, 1974, a W-2 Form must be furnished within 30 days after his final wages. Any employee who has terminated employment with any employer during calendar year 1974 should contact his former employer if a W-2 is not received within the time period as specified above.

+++

NOTE: Postcards (Form OAR-7004) are available in my office.

←←

### STATE OF THE ART.....Dave Stuber

I just took a stroll around the plant and came up with fifteen more new faces.

I started out down in incoming inspection where I found Dale Parrot, Marcia Balding and Thelma Freel.

Next I went to the Stockroom where I found three more new people: Jenny Schieber, Murray Young and John Collins. Jenny will only be in the Stockroom for a couple of weeks and then she will be moving up to Purchasing to take over Ann's old job.

I walked over to assembly next where I saw Peggy Skirvin and Dorothy Putz on

Line #2 and Marcus Collins on Line #3.

On the way to Set Comp, I passed Gale Balmer, our new maintenance man. Once in Set Comp I found Jack Collins, but was told he would only be there a short time on his way to Service.

On my way to Line #5, I saw Dan showing another new employee, Tim Brown, through the plant. Tim will also be working in the Stockroom. On Line #5 Cheryl Floyd is working on M-600's.

The next stop was Engineering where I saw Mike Axman putting a month or so in until Mr. Moore's transmitter project is under way.

Next I went to purchasing where I saw

### State of the Art (cont.) . . .

Barbara Hoeflinger putting more of  
our paperwork on micro-film.

I realize I have already been through Set Comp, but I just heard of another new employee there--Chuck McGuines has just been hired to help with the packing.

The next stop was accounting where I found Cheryl Dolby, sitting at her desk, doing whatever girls sitting at their desks do.

When I started my trip around the plant, there were 15 new people--and now there 18. I'd better stop now before any more arrive.

Wisdom is knowing what to do next;  
virtue is doing it. --David Starr Jordan

CROWN SPORTS.....John Bachman

Several bowling teams have cropped up at CROWN. Well, actually only 2, but it seems there could have been a lot more.

The Ladies' Team consisting of Cheryl Crow, Mary Miller, Arline Smead, Linda Morningstar and Deb Holderman have gotten off to a slow start and lost their first eight points (three games per night +1 for total pins).

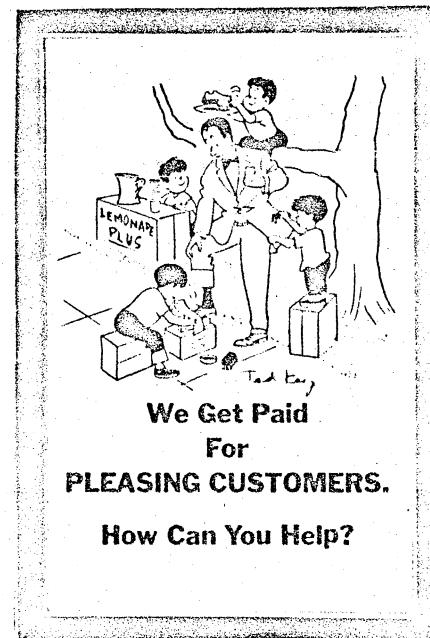
The girls have been close in all their contests but have fallen a little short.

The men, despite sterling performances

by four of the five members, dropped their first contest and lost 4 points also. Members of this team are Kingsley Becker, Larry Dennison, Tom Szerencse, Bill Brennan and John Bachman. The latter blew all chances of victory the first night.

Nothing has been heard from JIM BEATTIE on the office-production softball game, so this reporter would like to go on record as saying the office is CHICKEN. . . !

Till next time--be good sports!



Ladies Page . . . . .	Kate Moore
State of the Art. . . . .	Dave Stuber
Scene at Sales. . . . .	Donna Martin
CROWN Sports. . . . .	John Bachman
Gerald's Puzzles. . . . .	Gerald Stanley
Between the "Lines" . . . . .	Marcia Putz
Engineering News. . . . .	Randy Lehr
Editor. . . . .	Sylvia Eger