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The Scintillator

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**DIRECTOR OF INDUSTRIAL
RELATIONS**

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Freedom is a Lot of Little Things!

As we approach July 4th, 1946, it's a good idea to take stock of ourselves, and to clarify in our minds the significance of this holiday as it applies to modern times.

This year's Independence Day . . . the 170th birthday anniversary of our country's freedom . . . finds us striving for peace among nations, but faced on all sides by stubbornness and opposition. Many of us are beginning to wonder whether or not Americans actually are free, in the commonly accepted sense of the word.

Perhaps we can't see the trees because the forest hides our view. But let's remember that it's a lot of individual trees that make up a forest. Freedom doesn't consist merely of one big privilege. It's a lot of little things.

It means writing what we believe . . . saying what we want to say, including "no" if we feel thusly inclined . . . mixing it up in a good argument . . . criticizing the President and Congress . . . razzing the umpire . . . and countless other things that we take for granted every day in the year.

We've had such rights for so long that it's difficult for us to realize that some people look upon them as the ultimate in freedom. Many countries are discovering for the first time that it's these little things which, for the greater part, constitute freedom.

On this July 4th anniversary . . . the first peaceful one in several years . . . let us really keep Independence Day. Let's keep it with gratefulness in our hearts . . . with a complete awareness of our many privileges . . . and with a constant striving to maintain our worthiness to "life, liberty and the pursuit of happiness."

Poole Reports on Development of German Electrical Equipment

In the February, 1946, issue of the *Scintillator*, we carried a story about the activities of A. J. Poole, Sr., who returned in January from a special assignment for the Foreign Economic Administration. At that time publication of his findings was not permissible. However, the restrictions are now off, and we can talk about what he discovered during his trip to Germany. The facts included in the following paragraphs were presented to the Summer Meeting of the Society of Automotive Engineers, and will appear in a forthcoming issue of the *SAE Journal*.

According to Mr. Poole, there was little outstanding development in automotive electrical equipment in Germany during the war period. Investigation proved that the Germans concentrated principally upon improving designs already in existence at the beginning of the war.

Regarding magnetos for tanks and aircraft, they designed two or three types then "froze" the design. For example, a type was designed for 4, 5 and 6-cylinder engines and another for 8, 12 and 14 cylinders which, with the exception of distributor blocks and gear ratios, were basically the same. Production was carried out in at least ten dispersal plants, each plant making a complete unit. Thus if one plant was destroyed, they had at least nine others in which to continue production.

The Robert Bosch firm was responsible for practically all production of automotive electrical equipment, magnetos, timers, generators, starters, spark plugs, etc. Fifty-three dispersal plants, located at various points all over Germany, were set up to produce the tremendous amount of equipment needed for war purposes.

Battery ignition, of conventional design and simplest construction, was used extensively on trucks and passenger cars, whether gasoline or producer-gas driven.

Magneto production suffered from lack of cobalt for magnet steel. When this material became unavailable, suitable alloys were developed with the cobalt omitted. When copper wire became scarce, aluminum wire was used, and iron segments replaced copper in commutators. The Germans had to develop substitutes for many items such as beryllium copper, platinum, mica, chrome and rubber, which we considered indispensable.

It was repeatedly stated that at no time did automotive electrical production become a bottle-neck in the German war effort.

Electrical equipment for motorcycles had reached a high stage of development. The flywheel type of magneto was almost universally used, and gave evidence of good design and workmanship. Good use had been made of its ability to produce power for lighting. Extensive use had been made of the selenium rectifier for charging a battery for parking lights which are imperative in Germany, even for motorcycles.

Production of spark plugs was carried on mainly at the Opus Works at Bamberg. There they produced 1,000,000 spark plugs per month for tanks and trucks, and 200,000 for aircraft. There was nothing novel in these except that some attention had been paid to plugs for high altitude and for jet propulsion. Samples were brought back to this country for analysis of the ceramic materials used in the plugs. Glow plugs for Diesel engines also were investigated.

During the war a low tension spark plug was developed to overcome the difficulties experienced with normal plugs. These were intended for use with lower voltages, to lessen the tendency toward fouling and to make only one heat range necessary. This plug never got into production.

Mr. Poole found that considerable work had been done on battery ignition for use on engines using heavy fuel oil. They claim a spark duration of 30 degrees, and which will operate successfully at 3000 RPM. Many of these units had been supplied to Hesselman in Sweden.

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This view of the plant, taken by Norman C. Meagley, is the first post-war air photo of Scintilla. Photo was made at 1/825 of a second, on a 4" x 5" negative, and was enlarged for reproduction purposes.

POOLE'S REPORT *(from Page 3)*

In a plant at Heidenheim he found that an attempt had been made to produce a low tension ignition system. It was originally designed for a 16-cylinder engine by Kloeckner Humboldt Deutsch Co. at Obererusul. It was battery-operated and was a very cumbersome and complicated piece of equipment. In fact it is years behind the low tension equipment being made by Scintilla.

Electronic ignition also had been experimented with, but those who were questioned admitted freely that we here have forgotten more than they ever knew about it.

High frequency ignition had been taken up only from a research and experimental standpoint. It never went into production. It was more complicated and expensive than conventional ignition, and evidently had no operating advantages.

"Many times," Mr. Poole said, "in visiting plants which produced equipment similar to our own, I noted pieces which were being or had been produced on en-

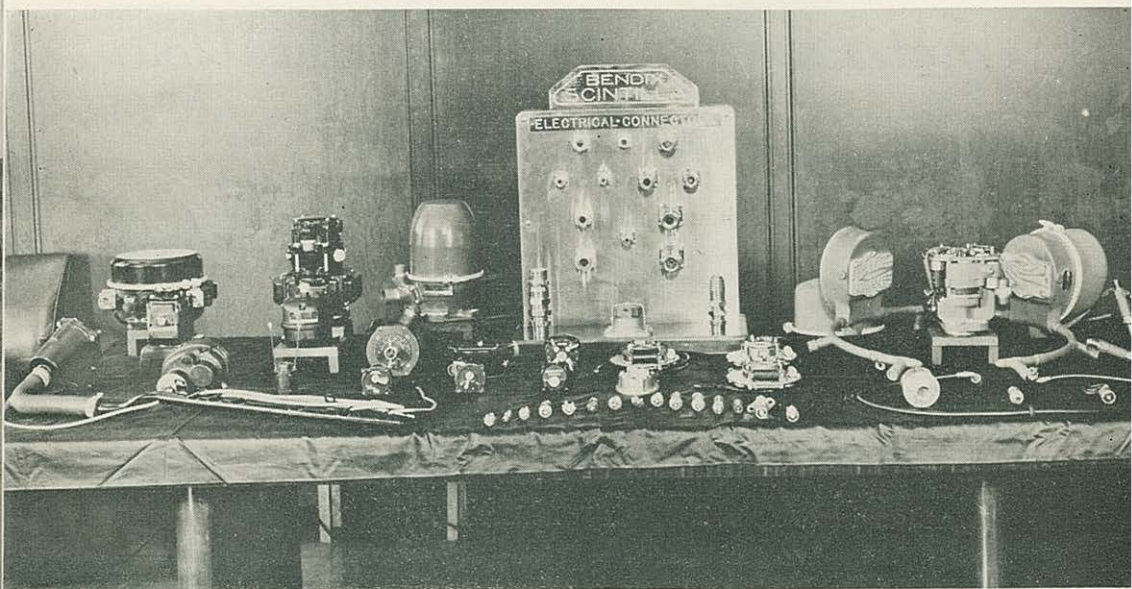
gine lathes or hand screw machines, and which we would have set up to be turned out on a Warner-Swasey or a Brown & Sharpe. When questioned on this the reply invariably was "Why tool up? We had plenty of labor." They never mentioned "slave" labor.

Comparing our own production methods with those of the Germans, he asked several German engineers why Germany ever permitted itself to enter into competitive war production with the United States. They replied that when they warned the High Command against it, those who were responsible for it always commented, "Yes, America is wonderful . . . at producing razor blades and chewing gum." How wrong they were!

Everything was set for the wedding ceremony, but the groom was looking worried.

"What's the matter?" whispered the best man, "have you lost the ring?"

"No," he answered shakily, "the ring's safe enough, but I've lost my wild enthusiasm!"



Display of Scintilla's new products, assembled for benefit of new Bendix president, Malcolm P. Ferguson. How many can you recognize?



*Bendix President
Malcolm P. Ferguson*

Souvenir Photos of President Ferguson's Visit to Scintilla



The camera caught new Bendix president, Malcolm P. Ferguson, in jovial mood at luncheon in the cafeteria during his unofficial visit to Scintilla on June 6th. L. to r.—G. E. Steiner, Comptroller, Scintilla Magneto Division; Mr. Ferguson; R. P. Lansing, Vice-President and Group Executive, Bendix Aviation Corporation.

What Do You Know About Your **Social Security?**

There's plenty of evidence that, while the American people generally are in favor of the benefits to be derived from the government's Social Security program, they are woefully lacking in the knowledge of its operation. It isn't as automatic as most of us think it to be. If we are to get the benefits to which we're entitled, it's up to each one of us to learn the Social Security ropes. Then we'll know what to do when the time comes.

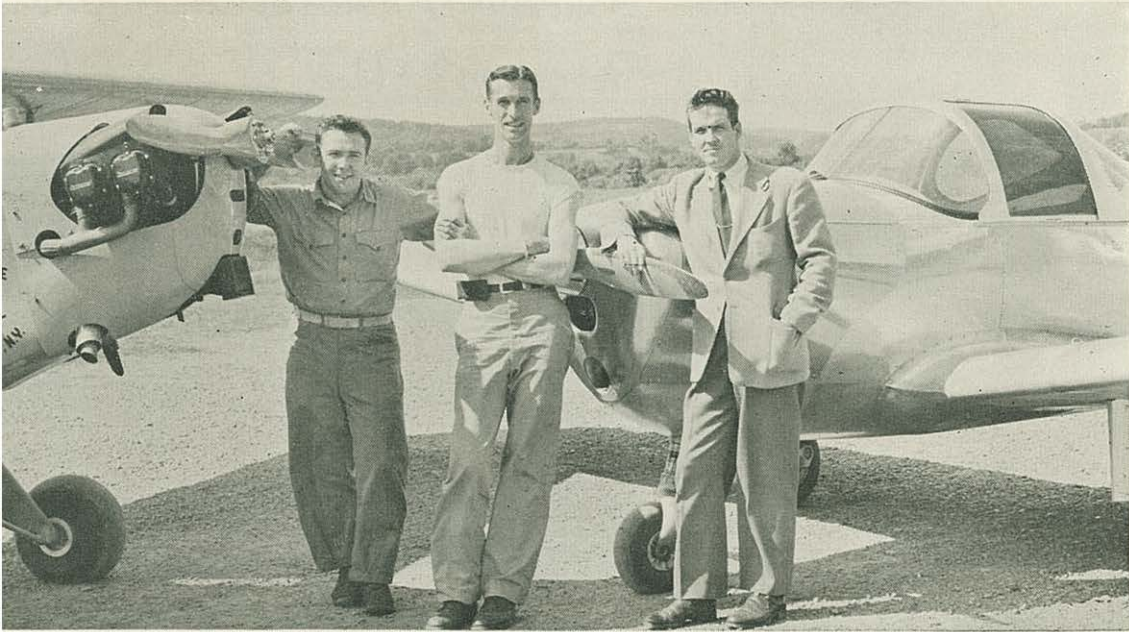
It was with this thought in mind that we wrote the Social Security Board Office in Binghamton, enlisting their help in preparing a series of articles which would be helpful to Scintilla employees. As a result, the Board has sent us considerable information which we have incorporated into several articles. This is the first of the series.

Check on Your Wage Record!

The benefits you and your family will get when you retire, and the benefits they will get if you die depend on your Social Security account. So it is of first importance that your account be absolutely right.

The Social Security Board does its end of the job with nearly 100 per cent accuracy. You can rely on that. But there are more than 70,000,000 accounts, and sometimes errors do occur. They occur because every once in a while an employer

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Bill Packard, left, and R. L. (Bo) Barratt, Jr., right, have set a new record for students of the Pratt & Felske Flying Service to shoot at. Packard soloed in a Piper Cub with only 6 hours of instruction under his belt. "Bo" took off and landed the Ercoupe after two hours of instruction. Both men are Scintilla employees. The man in the center is George Holdredge, instructor for Pratt & Felske.

SOCIAL SECURITY (from Page 6)

does not have a social security number or a name just as it appears on the worker's card. Therefore it is advisable to check on your account.

It is especially advisable to do so if you have worked for short periods for a number of different employers . . . or for a firm that was in business only a short time . . . or for an employer who did not copy down your social security account number, or did not deduct the 1 per cent social security tax from your pay.

If you think an error has been made, write to the Social Security Board, Baltimore, Maryland, and request a statement of your account. You can get an addressed post card form at the nearest Social Security Board office. If an error has been made, that office will help you get it corrected.

Once every four years you should check on your account anyway, because after four years some errors *cannot* be corrected.

One Social Security Card for a Lifetime

Do you have more than one social security card? And do you sometimes show one card to your employer, and sometimes another? If you're doing that, you may take a loss when you file a claim for benefits. Or your family may take a loss when they file a claim.

Why? Because your social security card is the key to your insurance account with Uncle Sam. If you have more than one card, it means that you have more than one account. It means that the wages reported by your employers are sometimes credited to one account and sometimes to another. And that may mean trouble when the time to draw benefits comes around.

What's the meaning of a social security number, anyway? It is something to identify your insurance account . . . something to keep your account from getting mixed up with somebody's else of the same name. (If your name is Smith, Johnson, Jones or Williams, there are tens of thousands you can get mixed up with). And it's of greatest importance to keep your account straight, because the benefits you or your family will get depend on the wages recorded in your account.

So if you have more than one social security card, let the nearest Social Security Board office know about it. They will

straighten out your account and tell you which number to use.

And suppose you lose your card. What then? The thing to do is to apply at the nearest Social Security Board office for a duplicate card. Don't ask for a *new* card. Ask for a duplicate card with the same number on it. Then you can be sure you will have just one account and that all your wages will be credited in the same place. Then when you or your family apply for benefits, there will be no trouble getting everything that's due.

So remember: One card . . . one number . . . for a lifetime.

The Social Security Board office which serves Broome, Chenango, Delaware, Otsego and Tioga Counties is located at 305 Post Office Building, Binghamton, N. Y. The telephone number is 2-6214.

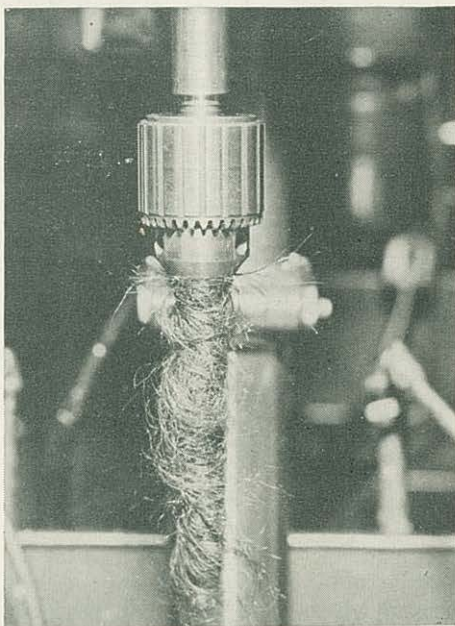


Phil Allen, Inspection Office, was needed into posing with this beautiful 16½ pound specimen of "Susquehanna Lake Trout" (carp to you, bud) which he wrested from the murky depths of the Susquehanna River, near Bainbridge. "We had a few bull-heads and wall-eyes," sez Phil, "when along came this monstrosity and gobbled up my bait." His nibs, Cyprinus Carpio, was laid to eternal rest in Phil's garden at 11 o'clock of a dark June night.

Distinctive Hair-Styling



Yes, it is distinctive, isn't it? It's the kind of hair-do that stands out in a crowd. The lady neglected to wear her safety cap . . . with the above result.



And here's the little gadget that did the job . . . a drill press chuck and drill. You can't see the drill because of the "crowning glory" that's twisted around it . . . but it's there, nevertheless.

Once upon a time there was a fair lady whose "crowning glory" was her pride and joy, and the envy of her feminine associates. When the sun struck her luxuriant locks, they fairly shone with beauty and vitality. Yet, she was mightily proud of her healthy crop of hair, and even went so far as to go places without a hat . . . which is the height of something or other for a woman.

One day she accepted employment in an industrial plant, and went happily to work turning out gadgets on a machine. Her foreman, mindful of the many hazards that lie in wait to trap the unwary, explained her duties in full, including the importance of wearing a safety cap to protect her flowing tresses. He carefully went into details concerning the amount of fumes and particles of dirt in the air which might settle on milady's hair and dull its beauty. Then he emphasized the

dangers to be encountered in the shape of whirling wheels, spinning spindles, grinding gears and whizzing wires . . . as well as what would happen to her hair should any of it chance to become entangled with these various and sundry hazards. Then he handed her a safety cap and cautioned her to wear it at all times while on the job.

So she proceeded to the Ladies Room and hid herself hurriedly to the mirror and tried on her new cap. Verily, she was not pleased with the effect. Horror of horrors, her glorious hair was completely hidden from sight! What waste of effort . . . what loss of beauty . . . what the hell did they think she spent money for on hair-dos . . . just to hide her mop? Besides, the cap erased her vibrant personality. Yea, it made her look just like any other working girl, which

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Distinctive Hair-Styling (from P. 8)

was more than she could bear.

When she returned to her machine she carefully stuffed the offending head gear into a dark corner under the bench, and promptly went to work. For a few weeks she had Lady Luck on her side. But eventually the tide turned. One day she was happily drilling holes in hunks of metal on her little drill press, when she leaned forward to inspect the drill's progress.

Swish! Before she knew what had happened, the drill had reached out and grabbed a fistful of her hair. Now drill presses, and all the other little whirling, whizzing, spinning machine parts that in-



habit an industrial plant have never been trained to act like gentlemen. When they grab a fistful of hair, they hang on until something gives . . . and that something has to be either the hair or the lady's scalp.

There is no need to continue further with the gruesome details . . . any lady who happens to read this can imagine herself in the same predicament, and should be able to guess the outcome.

Most fairy tales have a moral, but no doubt you've decided by now this isn't a fairy tale, after all. Nevertheless, there is a moral, ladies . . . and if you have as many brains as we think you have, you'll take it to heart: **WEAR YOUR SAFETY CAP!**

Hubby: What's this check stub—one pull-over \$25? Isn't that pretty expensive for a pullover?

Wife: That's what the cop said was the regular price.

Hubby: You got it from a cop?

Wife: Why, yes. I went through a red light and he blew his whistle and yelled "pull over."

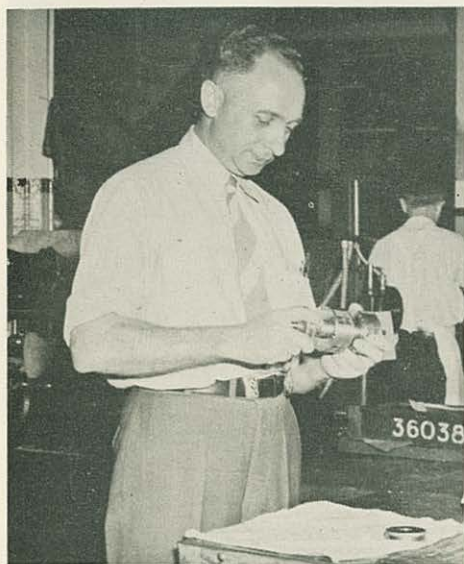


Helen Hotchkin (11-502), demonstrates the right and wrong way to wear a Safety Cap. This is the right way . . . with all loose ends of hair tucked securely under the cap.



And here's the wrong way. With all that loose hair flying uncontrolled, it's easy to get snarled up with any moving machine part. As to this method of wearing the cap, we can say only "don't do it."

Meet Your Supervisors



Theodore J. Beyen

Our supervisor this month is Theodore J. Beyen, one of the three Beyen brothers employed at Scintilla. Ted was born Jan. 30, 1904, at Neufefehn, Germany. Following grade school he spent three years in a trade school which combined both theory and practical experience. At the same time he was serving his apprenticeship in a job shop at Brinkun, where he became experienced in various types of mechanical work.

Upon completion of his apprenticeship, he became an employee of the Norddeutsche Heutte works in Bremen, a firm engaged in iron smelting. He worked there in tool and machine repair from 1921 to 1923. From 1923 to 1926 he was a tool-maker at the Hansa Lloyd Werke, and thence to this country where he arrived on August 13, 1926.

His first job in the United States was at the United Shoe Machine Corp. in Binghamton, where he remained about two

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Meet Your Foremen

Raymond F. Beames, a twin brother of Sidney's Police Chief, Ralph Beames, was born Sept. 24th, 1905, at Delhi, N. Y. He came to Sidney with his family in 1917.

Since his school days, the major portion of his life has been spent in industrial occupations. Early in his life he became familiar with the silk business, starting out as a broad silk weaver in the Palantine Silk Mill at Newburgh, N. Y. From there he went to the Van Raleigh & Rupert silk mill in Cold Spring, N. Y., as a warper. When that mill eventually closed he returned to Sidney and was employed by the Butterfly Silk Company.

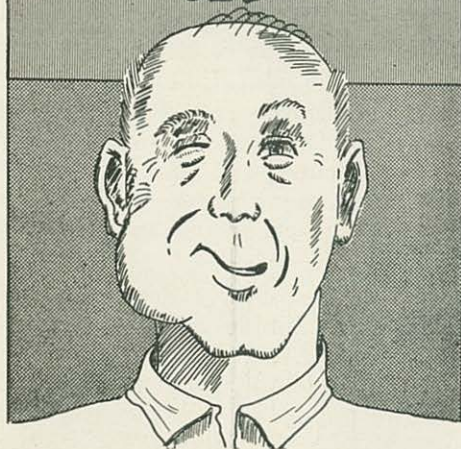
In 1929 Ray came to Scintilla as a millwright under Ken Payne. For twelve years he held various positions in the Maintenance Department, and in 1941 was made general foreman of wash racks, trucking, sweeping, handling and ordering of oils and processing supplies. During the war he also was responsible for handling of all cancellation parts destined for

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Raymond F. Beames

The Old Timer SEZ:



Seen' as how the Fourth o' July is kinda sneekin' up fast, my mind turns back to th' days when I was a kid, an' the fun we had when the big day rolled around.

Now I'm all in favor of observin' the 4th th' way we do now . . . safe and sain, so's moar people will be alive on the mornin' of the 5th. I'm past th' age fer thrill-huntin', but sometimes I git a kick from jest rememberin' about the good old days, when a kid who didnt have a few bandages on his karkass the day after the 4th, was a sissy.

I kin still feel the sizzle in the seat of my pants after Paw got through with me that time when I opened the 4th by tossin' a six-inch cracker in his bedroom winder at 5 A.M. That was befoar I understood th' explosive foarce of a six-incher . . . specially when it lands in a thick china-ware receptacle. Paw spent an hour and a half diggin' chunks of chinaware out of the plaster. He found the handle had gone through the tail of his nite shirt which, because of the warm wether, was hangin' on the foot of th' bed.

Then there was the time I aksidentally touched off a string of crackers that somehow got into Grampaw's hip pocket. Th' old feller had been lade up with rheumatiz in his knees, but all of a sudden he fergot his infirmities and busted all records sprintin' fer th' duck pond. Grammaw always said that was the fastest she'd seen him move in 50 years.

Another big event was th' day Stinky Schultzenheimer touched off a sky-rockit rite in the middle of the parade down Main St. Mayor Jones, dressed as Unkle Sam, was leadin' the parade on a white horse. The rockit went thru his high hat, scared the wits outta the horse, an' the Mayor wound up in a tub of pink lemonade that the Ladies' Aid was dispensin'. Nobody knew where the rockit had stopped until the bass drum blowed up.

I guess the good Lord musta been watchin' over us kids all right, otherwise most of us would never have lived to wear long pants. Like the time Sneed Simmons an' me set a big pickle crock over a couple o' cannon crackers. As I look back on that day, I think Sneed an' me oughtta git credit fer takin' the first steps toards developin' the atom bomb. We busted 17 window lites, scared the hell out of Widow Perkins two blocks away, blowed the door off the out-house, and dekapitated Ma's Plymouth Rock rooster. He was the tuffest bird I ever set my teeth into.

Yeah, those were the days all right. But I ain't in faver of it any moar. I guess kids now-days has got moar sense . . . or mebbe their fathers and mothers has finally growed up. On th' other hand, moar people git killed in autos today, so mebbe we've jest swapped a little hazard fer a bigger an' deadlier one!

RAY BEAMES (from Page 10)

scrap. He became general foreman of these functions in 1942.

Ray resides with his family at 21 Colegrove St., Sidney. The Beames' have two children . . . a daughter, June Ellen, 3 years old, and a son, Raymond Francis, Jr., 4 months old.

As a hobbyist, Ray prefers the great open spaces for spare time activities . . . going in heavily for hunting and fishing.

He holds membership in the Scintilla Gun Club, the Sidney Field Trial and Sportsmen's Club, the Unadilla Rod and Gun Club, the Otego Rod and Gun Club, Sidney Lodge 801, F. & A. M., Royal Arch Masons and Zor Grotto.

Ray puts himself on record as favoring Scintilla over any other place he has worked.

HAVE YOU ORDERED YOUR SAFETY GLASSES YET? CONTACT THE SAFETY DEPT.

THIS TIME IT'S FOR YOU!



The support that you gave your Government and your fighting men when you bought War Bonds greatly helped in achieving final, complete and smashing victory. You backed your Government and your fighters to the end.

The War Bond is now the peacetime bond, and will continue on sale as the United States Savings Bond. You owe it to yourself to keep on buying Bonds, for they will do great things for you . . . just as they did for all of us in eight mighty War Loans. But this time it's for YOU.

The United States Savings Bond, with its guaranteed values, when held to maturity, pays a better return than any similar security anywhere, and the full faith and credit of the United States Government stands back of this Bond. There is no stronger security anywhere in the world today.

Like millions of others, you too will probably want to continue buying regularly and systematically so

that you will have a substantial fund for the security of yourself and your family in the years to come.

The home you've dreamed about . . . further education for yourself or your children . . . a safety fund in case of trouble . . . a reserve for general security . . . your retirement income . . . any of these can be yours if you save according to predetermined plan.

The United States Savings Bond Plan is as simple as ABC. It requires that you decide what you want to save for, how much you'll have to put aside each pay day and . . . MOST IMPORTANT . . . the determination to go through with your plan.

The table below shows what you can accomplish in a few years through systematic saving with the U. S. Savings Bond Plan.

<i>Save</i>	<i>And You Will Have</i>		
<i>Each</i>	<i>in 1</i>	<i>in 5</i>	<i>in 10</i>
<i>Week</i>	<i>Year</i>	<i>Years</i>	<i>Years</i>
\$ 0.75	\$ 39.00	\$ 200.74	\$ 431.49
1.25	65.00	334.11	719.11
2.50	130.00	668.97	1,440.84
3.75	195.00	1,004.20	2,163.45
7.50	390.00	2,009.02	4,329.02
12.50	650.00	3,348.95	7,217.20
15.00	780.00	4,018.67	8,660.42
18.75	975.00	5,024.24	10,828.74

Scintilla Magneto Division is continuing the Payroll Savings plan for your convenience in buying United States Savings Bonds. If you are not already taking advantage of this plan, it will pay you to look into the matter. Your department clerk will be glad to obtain a payroll deduction authorization card for you.



Portion of the Bendix Aviation Corporation's display of products at the National Marine Exposition, with Scintilla ignition equipment on left stand and fuel injection equipment on the right. Show was held May 20-25 at the Grand Central Palace in New York City.

TED BEYEN (from Page 10)

months. He then joined the 1900 Washer Co. in Binghamton as a toolmaker.

His association with Scintilla dates back to January 23, 1928, when he became a tool and die maker in the Tool Room, remaining in that classification until April, 1934, when he was made a foreman in the Rotor Department. In 1936 he became Supervisor over Automatics, Grinding Department and the Bench Department. During the war he also supervised lines 49-56 in addition to his other departments. Since reconversion he has been Supervisor of our present departments 26, 27 and 30.

He was married to Christine Diekhoff in 1929, at the First Congregational Church in Sidney. They have two daughters . . . Irmgard, who will be sixteen in August, and Sylvia, 14 months of age.

Until about two years ago bowling was Ted's favorite pastime. However, he has

done little in this sport the last couple of years. The summer months find him in his garden whenever time permits.

Ted lives at 7 Oak St., Sidney, and is a member of the American Society of Tool Engineers, and the Scintilla Gun Club.

The Cover

This is the stuff the song writers have in mind when they come up with the lyrics about "June" and "moon," "You and a canoe," and other romantic lingo of similar type. No matter what they say about it, we have to admit there's nothing like the good old summertime.

Photo by Lambert

Here and There Around Scintilla . . .



Mr. and Mrs. F. M. Campbell

Mr. and Mrs. F. M. Campbell Honored on Golden Wedding Anniversary

On Saturday afternoon and evening, May 11th, Mr. and Mrs. Francis M. Campbell, 3 Union St., Sidney, were guests at a reception and buffet supper given in honor of their Golden Wedding Anniversary at the home of their son and daughter-in-law, Mr. and Mrs. K. V. Campbell, 91 River St.

The bride and groom of 50 years were married at Delanson, N. Y., by the Rev. D. I. Putnam, a first cousin of the bride's mother. He also officiated at the wedding of Mrs. Campbell's mother and father.

Early in their married life Mr. and Mrs. Campbell moved to Oneonta, where they resided for many years, Mr. Campbell being engaged in the Real Estate and Insurance business with his brother. They moved to Sidney in 1942. Mr. Campbell is now employed in Department 12 at Scintilla.

The honor guests were presented with a substantial purse in money and bonds by their brothers and sisters and two sons. Neighbors, relatives and friends also sent gifts and congratulations. To these the Scintillator also adds best wishes for many more years of happy wedded life.

Former AAF Inspector to Open Restaurant

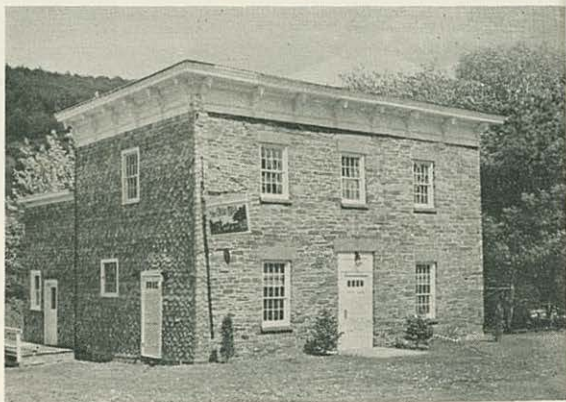
Betty O'Connell (Mrs. C. Rockwell McPherson), formerly an AAF Inspector at

Scintilla Magneto Division, informs us that she expects to open a new eating place in Rockwell's Mills about July 1st.

Betty has leased the Rockwell Woolen Mill for ten years and has completely re-decorated the ancient edifice, which was originally built in 1792. Many of the old features have been preserved.

Betty is really cutting out a job for herself . . . she says she plans to be open for business seven days a week from 7 A.M. to 11 P.M. Legal beverages will not be served, in order that particular emphasis may be placed upon home-cooked foods. In other words, she intends to cater to epicurean tastes.

We know that many of her Scintilla friends will avail themselves of the opportunity to partake of genuine home-cooked nourishment.



Built in 1792, this former portion of the Rockwell Woolen Mill, at Rockwell's Mills, is being transformed by Betty O'Connell (Mrs. C. Rockwell McPherson) into a restaurant. Many of the old original features of construction have been preserved for the enjoyment of the dining public.

Photo by Teed Studio

STOCK C—Mrs. Florence Auringer recently had a day off and came back with the announcement that she had a new daughter. (Ed. Note—This one has us guessing!)

Burt Laraway attended a family reunion at Livingston Manor recently and mentioned that the hotel had been torn down. (It must have been some party, Burt.)

Evelyn Archer recently spent several days as a delegate for Rebekah Lodge at Rochester. Wonder why she didn't sleep more!

(Continued on Page 15)

BENDIX DEVELOPMENTS

In order that members of the Scintilla family may keep abreast of what's going on around Bendix, we are taking the liberty of reprinting some of the facts published in the June issue of Bendix International's "News Reporter."

New Vacuum Assist for Two-Speed Axle: Owners and operators of heavy truck equipment using two-speed axles will be gratified by the announcement of Bendix Products Division of a new vacuum assist for shifting from high to low speed ratios. The mechanism is designed to operate either from manifold or vacuum pump. It is simple in construction and obviates much of the physical effort heretofore expended in changing transmission speeds. Installation can be made with the conventional transmission operation or so as to eliminate clutch movement entirely.

Piston with Rings Now Cleaned as Unit: The disagreeable job that used to make cleaning sludge-formed carbon from pistons and piston rings a chore has been done away with by the introduction of BENDIX cleaner. Now rings, pistons and connecting rods can be factory cleaned as a unit by several hours' immersion in the cleaning solution. It does the job faster, requires less mechanical skill, and assures customer satisfaction.

Scintilla Pick of Many Leaders: Scintilla products of all types are being specified for a great many of the new aircraft and automotive units now in various stages of development. Continental, Lycoming, and Aircooled Motors are to use the light-weight small-engine magneto. Scintilla's post-war light plane ignition switch has already been chosen for the "Ercoupe," and interest in this item is being shown by other manufacturers.

In addition, a new type crankshaft magneto (K-series) has been ordered by several outboard motor manufacturers as well as Kiekhaefer, Doyle and Clinton industrial engines. This equipment will also be used on Mall portable saws.

This trend is in line with overall re-conversion policies of airlines throughout the U. S. A., where, too, one finds Scintilla replacing other types of electrical equipment used during the emergency because of unprecedented demand for Bendix products.

Tests on Lining Prove Superiority: Extensive tests are now being made on the latest brake lining developed for quantity production in one of Bendix Aviation's new plants. Fleet operators have cooperated in the tests, and they have indicated considerable improved performance can be expected from the new product.

Flightweight First with Light VHF Set: Bendix Radio's own "Flying Laboratories," three fully equipped light aircraft, have already started an extensive tour to all the principal personal plane manufacturers in the country. The object will be to demonstrate in actual operation the new line of Bendix "Flightweight" Radio. Featured unit is BENDIX'S astounding VHF (very high frequency) transmitter, the first of its class, which revolutionizes private plane radio transmission. Preliminary tests have proven its range at 75 miles.

Bendix International has been informed that these flying tests are the first ever to be initiated by a manufacturer of aircraft radio equipment especially designed for the private plane. The first demonstrations have been held at Newark, New Jersey, and other airports with marked success.

The VHF transmitter occupies no more space than a few packs of cigarettes and weighs little more. Other equipment carried is the PAR-70 receiver and the PATR-10, which is a combination of the VHF transmitter and the PAR-70 receiver.

Around Scintilla (from Page 14)

Louise Gonser and Murray Haynes recently took the wedding vows in the church at Mt. Upton. The wedding was a large one, and was followed by a reception. Several Stock C employees attended the affair.

Did anyone notice Irma Roney's new hair-do? If not, why not?

George Williams has purchased a home near the hospital.

Murel Jordan, for many years a Stock C employee, recently underwent a serious operation in the Sidney Hospital.

Wonder why Juna Brownell and Evelyn Archer like to go to Sales so well?

(Continued on Page 16)

Around Scintilla (from Page 15)

Kathryn Pickins still is the glamour girl of Stock C.

Jim Smith now has 31 stockroom since Angelo left.

TOOL DESIGN—Max Reichen has left us to join a concern in Syracuse. A party was held for him on May 10th at the Moose Club.

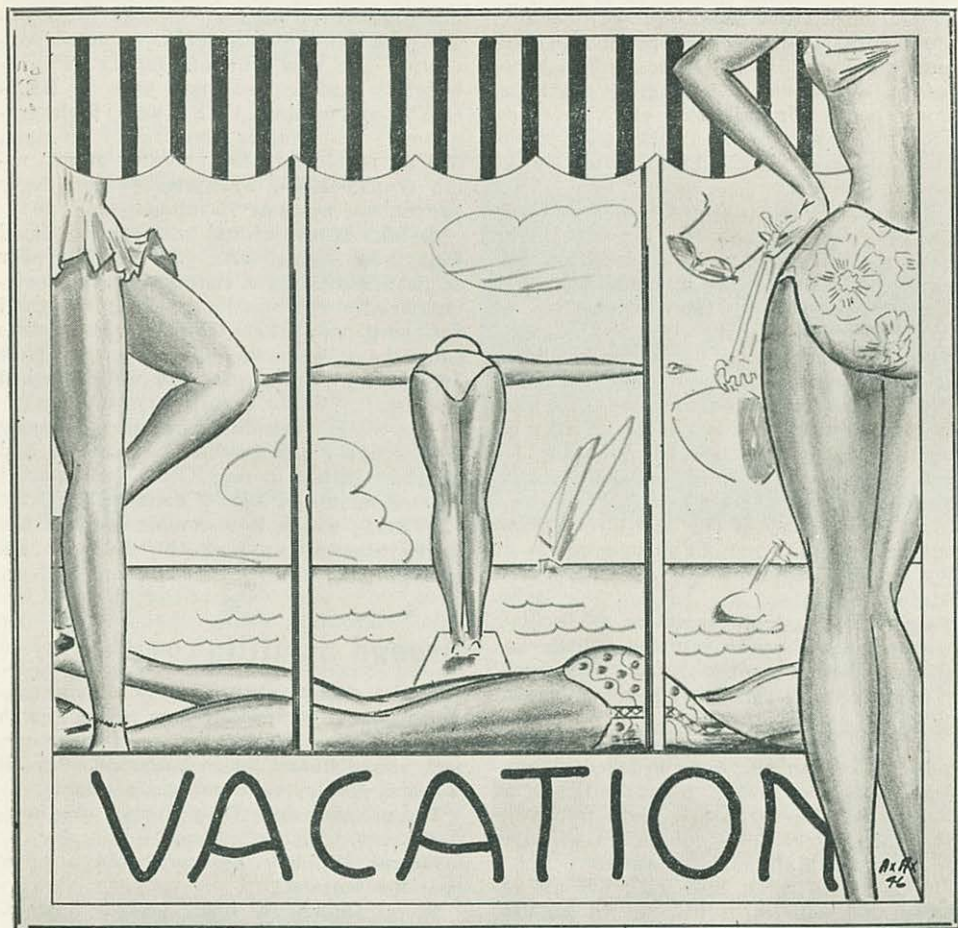
Jay Taber, the farmer, is doing great things these days. He's raising beef cattle and has them geared to high production. That's Tool Design's future meat supply. It seems Steve Egnaczak is trying to give Jay a little competition. Steve has one now, but . . .

Andy Peterson has moved to his new home in Bainbridge.

Now that Orson and Inga are an old married couple (since Easter), they are patiently waiting to move into their home out Ax's way in Oneonta.

(Ed. Note)—We have withheld publication of the survey form on old cars which was sent in with Tool Design comments. We don't understand the purpose of the survey. Will the originator of the survey please contact the editor and explain more fully?

MISCELLANEOUS — Summer has come to Personnel Dept. Yep . . . Ken Payne's boys dropped in with their assortment of drills and chisels, and struggled through the annual ordeal of putting on the screens.



"Mother, may I go for a swim?"

"Oh, yes, my darling daughter . . .

But with all that bare expanse of skin,

You'd better stay in the water!"



Listed as one of the wonders of the world is the Starrucca Viaduct, located at Lanesboro, Pa. Owned by the Erie Railroad, it was completed in 1848. It was built entirely of stone, with lime and sand mortar used as a binder, yet it supports today's heavy trains.

Penna. Dept. of Commerce Photo

STARRUCCA VIADUCT - *Masterpiece in Stone*

Situated only a few miles almost directly south of the village of Windsor, and just below the New York-Pennsylvania line, is the Starrucca Viaduct, classed by engineers as one of the wonders of the world. While the Viaduct has become commonplace to residents of Lanesboro, Pa., where it is located, it offers interesting possibilities to strangers from Scintilla and surrounding areas to whom its features are unfamiliar.

If you are anything like the editor, then you're always looking for interesting spots, preferably nearby, as the target for a leisurely Sunday afternoon ride in the family bus. We learned of the Viaduct through a couple of our Scintilla associates, and became so interested in it that we took the trouble to dig into the subject for the purpose of doing this story. We are indebted to Harold Pendorf, Experimental Dept. Supervisor, for a couple of the pictures appearing with this story, as well as for furnishing a booklet containing most of the following facts.

The Viaduct spans the Starrucca Creek and bears the tracks of the Erie Railroad. The first contract for building the Viaduct was let to two men, Barker and Denton, who took it for \$375,000 in

the spring of 1847. The job proved to be too much for them and they went broke.

In the spring of 1848 an Erie official appealed to Julian W. Adams, one of
(Continued on Page 18)

Starrucca Viaduct *(from Page 17)*

their leading contractors and bridge builders, asking if he knew anyone who could build a viaduct over the Starrucca valley, in order to complete the railroad's lines between Deposit and Binghamton. Three different contractors had already attempted the task and failed. "I know but one man who can do it," said Mr. Adams, "and that is James P. Kirkwood, a Scotchman."

The proposition was submitted to Mr. Kirkwood who visited the site, investigated the facilities for getting the material, and reported, "I can build the viaduct and finish it in the required time . . . provided you don't care how much it costs." He was instructed to go ahead.

His first move was to go three miles up the Starrucca Creek and open up stone quarries to get the stone. He then built a wooden track on each side of the stream which brought the material in cars to the work site. Stone also was brought from a quarry near Cascade. In May, 1848, about 800 men were employed on the

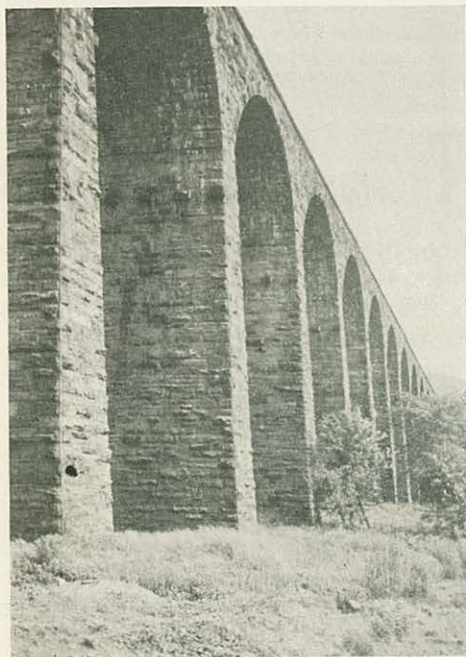
job, nearly all of them housed in a city of tents which sprang up like mushrooms.

A half-million feet of lumber was used in the false work which was extended across the valley. Operations were rushed day and night with such speed and efficiency that the viaduct was finished and ready in the fall of 1848, ahead of the specified time. The 800 laborers were paid \$1.00 a day for their services.

The viaduct is 1200 feet long and is built of solid masonry. It is 110 feet high at its greatest height, and has 17 arches with spans of 50 feet each. Although originally designed for a single track, it now carries a double track with a 30-foot clearance on top. The estimated cost was from \$320,000 to \$335,000.

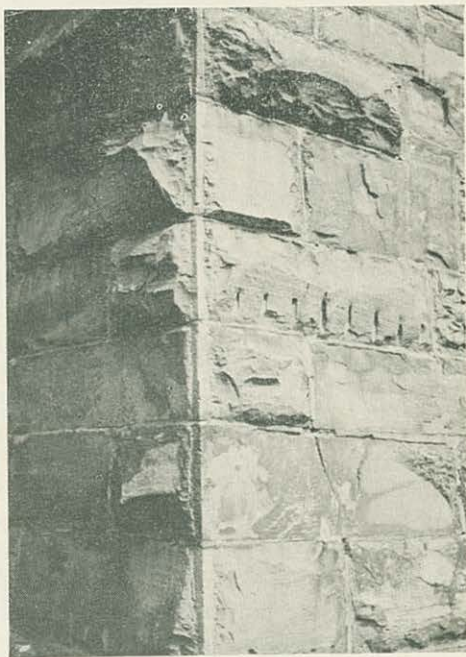
An eye-witness to the construction said that the job fascinated the natives of the area. The initial task was to dig the foundation piers down to bed rock. The pits were dug larger than the piers, and all the work was done by hand power

(Continued on Page 19)



The symmetrical beauty of the Viaduct's arches becomes apparent in this perspective photo.

Photo by Harold Pendorf



Close-up of the stone work in the Viaduct. Mortar shows plainly in the joints between stones.

Photo by Harold Pendorf

Starrucca Viaduct *(from Page 18)*

... with pick, shovel, and windlass or gin-pole, which was pulled by a mule. At each pit a crew of four men was kept busy working a plunger pump to keep the water out. When the pits were dug they were filled with stone and cement to surface level.

Next came the building of the piers. First there was a false work of timbers, scored and hewn. When the false work was ready a wooden track was laid across it, to handle the stone as it came from the quarries. The stone was cut and numbered before being loaded, and was unloaded by derricks. Two holes were drilled in the large stones to facilitate handling. By means of two plugs and a ring attached to a chain on the derrick, the blocks were lifted from the cars and lowered into place, guided by the numbers painted on the stones.

It is noteworthy to remember that although the viaduct was built to accommodate light, wood-burning locomotives and the light trains they pulled in those days, it now safely bears the heavy engines and trains of the modern Erie.

Upkeep of the structure has been almost nothing, as very little repair work has been necessary. In the building of the viaduct only lime and sand mortar were used. There were no scientists on hand to make tests of the Portland ce-

ment, because modern day cement was still unknown at the time. Actually, no elements of modern invention were employed. Built in the days when the most primitive methods were all that were known, the viaduct has stood the storms of nearly a century . . . and another century may pass before it needs heavy repair work.

One feature that proves the efficiency of its design is that the more weight running over it, the more solid and compact it becomes. The viaduct is the second oldest stone-arch railroad viaduct in the world. There is another at Relay, Md., serving the B. & O. that is 10 years older and a little longer, but is not so high.

From the Sportsmen Angle

Another season rolls around and finds the Sidney Sportsmen's and Field Trial Club awaiting its new crop of pheasant chicks for 1946.

These little fellows, always a big attraction, should be here by the time this information gets to the reader. It is expected that about 400 will arrive and be cared for until about twelve weeks of age.

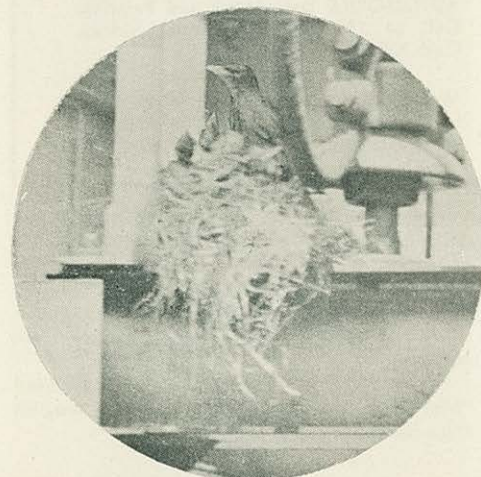
Reports have it that larger catches of trout, pike and pickerel have been made this year than in any season during the last five years. This may be attributed to the fact that up to the recent flood period, the spring was ideal for game fishing. To this may be added the fact that fishing waters have had an opportunity to rest during the war years, and have had time to re-stock themselves. Furthermore, fish planted by the Conservation Department have helped to increase the take.

Although the season is still young, the committee for the Fall Field Trial has been appointed, as follows: Robert Keyser, Chairman, assisted by Clayton Welch, Ted Bolton, Harry Earl, Norman Meagley, Ralph Mason, Mario DeSalvo, Robert Day, Kenneth Davis, H. C. Walters, and Glenn Dingman. Darryl Pendorf is this year's Junior Committeeman. Dates for this year's trials will be October 12th and 13th.

The club is a member of the Amateur Field Trial Club of America, and the Central New York Field Trial Association.

"Our duty is to be useful, not according to our desires, but according to our capacities."—Henri Frederic Amiel.

"The bigger a man's head gets, the easier it is to fill his shoes."—Henry A. Courtney.



Although the photo is somewhat foggy, this serves as a record that the clatter and bang of an industrial plant is no deterrent to the domestic tendencies of this robin family. Nest was located outside of old Heat Treat Room.

BARTER COLUMN

FOR SALE: Garden cultivator with attachments. Price, \$5.00. N. C. Meagley, Photography Dept.

COCKER SPANIEL: Glencrest Pat the Great, son of Champion Holmeric of Brookville and Champion Ozark Diana . . . at stud to approved bitches. Bob Stafford, Morris, N. Y.

YOU CAN GET new Motorola home and car Radios at Reynolds' Radio Sales and Service, Authorized Dealer, 5 Glen Ave., Sidney. All types of radios repaired. New types of car aeriels and aeriels for FM. Also parts, tubes and second hand sets. Arthur Reynolds, 34-59, Second Shift.

FOR SALE: 2 gasoline stoves . . . 1 four-burner, 1 three-burner. Clarence Hanor, Masonville. Call Sidney 6464.

FOUND: Pocket size Bible, containing Old and New Testaments. Owner may have same by identifying. Call Helen Beach, Ext. 334.

LOST: Argus Model A 35 mm. camera, in vicinity of Peckham's Grove during Engineers' Picnic on Sat., June 8. Reward for information leading to recovery of camera. Jack DeTemple, Engineering Dept.

FOR SALE: Thoroughbred Cocker Spaniel pups. A. Egli, 11-11, or call Sidney 5961.

FOR SALE: Thermal ice box, 50 lbs. ice capacity. Call Sidney 3409 after 5 P.M.

FOR SALE: Motor Racing Boat, Class B. Cost \$165 . . . will sell for \$65. Harry L. Perry, 34-2.

FOR SALE: 10-foot canvas bottom sail boat with sail and rigging; also new 16-foot mast and 9-foot boom with sail. Also small coal hot water heater with draft regulator and tank fittings. George Sherman, 90-39. Tel. Oneonta 2366-J.

FOR SALE: B-flat Baritone Horn with case. Good condition. Floyd Tuckey, 15 Pleasant St., Sidney.

WANTED: 20 to 200 acres of cleared farm land . . . no buildings . . . within 10 miles of Sidney area. Steve Pollack, 34-23, Day Shift. Call Sidney 6209.

FOR SALE: Baby car seat, \$2.00 . . . Indoor Play Pen with mat, \$7.00 . . . Outdoor Play Pen, 20 ft. by 20 ft., \$7.00 . . . Or all for \$15.00. Will also swap #10 Remington Typewriter for deer rifle or .22 pistol. Steve Pollack, 34-23. Call Sidney 6209.

WANTED: 2 lavatories . . . 1 bowl and water tank . . . 1 bath tub . . . also fittings for above items. E. Murphy, 88-7. Or Morris, N. Y.

AUTOMOBILE Body Work and Painting. Call at 191 Johnston Circle, Sidney. Carl Kiff, Dept. 43.

WANTED: Buttons of all kinds. Also earrings and pins made from buttons and cuff links. Evelyn Archer, Stock C.

Lend-Lease

Axel Axhoj (Mold Design) is enjoying Lend Lease in reverse. In a package from his mother in Denmark, he received several pounds of cube sugar and a couple pounds of smoke cured bologna. Ax says he had told her of the scarcity of meats and sugar in Oneonta, and since food is fairly plentiful in Denmark, his mother contributed these items from her own supply. She reports that clothing is very scarce in Denmark, with women's summer coats selling for about \$1,000 apiece.

"This is the final test of a gentleman: his respect for those who can be of no possible service to him."—William Lyon Phelps.

One morning while shaving, Mortimer was carrying on so angrily that it attracted the attention of his wife who was preparing breakfast in the kitchen. "What in the world's the matter?" asked his young spouse.

"My razor—it won't cut!" shouted the husband.

"Don't be silly, Mortimer," she replied. "You mean to tell me your beard is tougher than the linoleum?"

Two fishermen sitting on a bridge, their lines in the water, made a bet as to which would catch the first fish. One got a bite and got so excited that he fell off the bridge.

"Oh, well," said the other, "If you're going to dive for them, the bet's off!"