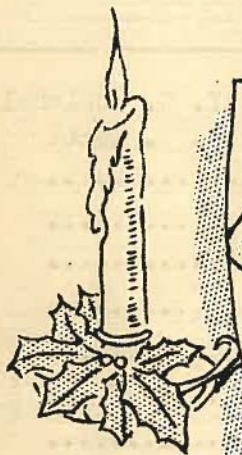


ARKANSAS HIGHWAYS

Vol. 1
No. 2

Greetings



December
1953



ARKANSAS HIGHWAYS

A Monthly Magazine for Employees of the
Arkansas State Highway Commission

HAZEL S. ERDMANN.....Editor
DENNISON YATES.....Business Manager
W. H. MOORE.....Art Work

VOL. I

DECEMBER 1953

NO. 2

STATE HIGHWAY COMMISSION

Raymond F. Orr, Chairman

Miss Willie A. Lawson
Glenn F. Wallace

Cecil S. Lynch
D. F. Portis

Herbert Eldridge, Director
A. E. Johnson, Chief Engineer

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LETTERS

We, of the magazine staff, thank our readers for the many wonderful letters of enthusiasm and praise for the first issue of our Highway magazine. Your letters were truly an inspiration and we shall strive to be worthy of your confidence by bringing you articles of interest and up-to-date Highway news.

We have received letters from several retired Highway employees requesting that their name be included on our mailing list. We are glad to comply with their request.

BOOK CORNER

The first edition of the "Arkansas Almanac," published by the Arkansas Almanac Company, Inc., has been released. A great deal of research has obviously gone into the compilation of this book, which is an almost complete collection of Arkansas facts and figures.

The "Arkansas Almanac" will be a valuable ready reference and guide for anyone seeking informative data regarding our state.

Four pages have been devoted pictorially to the construction and maintenance of Arkansas Highways as well as statistics, which were reported by F. J. Herring, our Engineer on Statistics and Analyses.

RETIREMENT FUND

On November 27, the State Highway Retirement System Board of Trustees purchased \$115,000 principal amount of 2 percent U. S. Government bonds, issue 67-72, at a price of \$108,854.69. This resulted in a discount of \$6,145.31 which will accrue to the Retirement System Fund at maturity.

With this purchase the System holds \$825,000 principal amount of Government Bonds which yield interest in excess of \$20,000 a year. This item alone is more than double the System's liability for employees who are now drawing retirement benefits and reflects an unusually healthy condition.

In other action the Board re-elected V. E. Scott as chairman and C. Don Hayes as vice-chairman for the ensuing year.



TRAFFIC COUNTING AND SURVEYS

by Y. W. Whelchel, Assistant Engineer
Statistics and Analyses Division

No one needs to tell any of us that some of our streets and highways are overloaded and traffic volumes greatly exceed the volumes the roads were designed to accommodate. However, it is very important that traffic counts and studies be made so our engineers can determine the most inadequate roads or sections of roads. It is necessary to know the traffic volumes and composition of traffic so improvements may be programed on a basis of critical need, and new facilities designed and planned intelligently. More efficient use of existing facilities can be made when we know the number and characteristics of vehicles using them.

The Traffic Analysis Section of the Division of Statistics and Analyses makes several types of traffic surveys, each one being designed to serve some purpose.

The most common of these is the Motor Vehicle Volume Study, which is merely a count of the number of vehicles passing some given point during a period, usually 24 hours.

Traffic volumes are never the same — there is a wide variation after midnight to the peak, which usually occurs from 4 to 6 p.m. and which, near cities, may be 10 per cent of the total daily volume.

Also, the volumes vary from day to day, depending on the weather, business, or other causes, and the Saturday and Sunday movements are usually higher than on other days. Monthly and seasonal variations, crop movements, tourists, all have their effect. For most purposes an annual average daily volume is required which we get by making several counts throughout the year and averaging them. For some purposes, such as establishing patrol hours, the hourly volume is needed. Capacities of new highways are designed for the peak of traffic which can only be determined on an hourly basis.

Traffic volume counts are made with machines, either fixed or portable. These are of two types, one prints hourly traffic on paper tape, and one accumulates figures on a dial which is read at the beginning and end of each period. Since the machines record only the number of vehicles, it is necessary to make short visual counts in order to show the types of vehicles.

Traffic volume figures are used for many purposes, but principally in highway design, traffic-control plans and safety measures, and securing the most efficiency in highway use under current conditions.

Another common traffic count is the vehicle movement at street intersections; those that go straight through and those that turn left or right. This gives the requisite information for determining if signals may be warranted. We often use diagrams made from such counts to show what may be causing traffic jams. One or two left turns can tie up a number of vehicles for the entire green phase of a light cycle. Study of the vehicle movements helps determine length of time given to vehicles on each street. We often find the cycles are too long, or cross-street traffic time is the same as that given to the main highway. We are always glad to aid officials in timing their light cycles properly.

Another type of survey we make frequently is an Origin and Destination Study (O&D). In this we stop all vehicles to ask driver where he came from and where he is going. This study aids in determining need for a new highway route or perhaps re-routing an existing highway, by-pass or expressway, or even a new bridge. Just because a certain road is crowded with traffic doesn't necessarily mean that particular road should be widened; an O&D Survey might show that the people would use an entirely different road if they had it. On the other hand, such information often shows us traffic must follow that particular route regardless. We found that 85 percent of the traf-

fic on Highway 70 was destined for Little Rock, and would not use a by-pass. It has been found all over the United States that from 50 to 90 per cent of the vehicles, depending on the size of the city, are bound for the city itself.

We make speed checks along the highways to find out how fast the cars and trucks are going, and inside town to get data for speed zoning. We find considerable misconception on the part of the public regarding speeds: they think vehicles are traveling much faster than they really are and want to set up absurdly low speed zones.

Traffic engineers and experienced police officers generally agree that a speed which is not exceeded by 85 percent of the drivers is, in most cases, reasonable and safe. However we use a 75 percentile in Arkansas. Experience has proved that reasonable speed restrictions are usually easy to enforce, but the motoring public tends to ignore regulatory signs when the need for them isn't readily apparent to the driver. In one case drivers were exceeding 40 mph where the posted speed was 25 mph. When the posted speed was raised to 35 mph the majority of drivers slowed down to that speed.

We have received an Electronic Speed Meter, which records speed of passing vehicles by radio frequency micro waves. This meter, which is absolutely accurate, will

(continued on page 21)

OF THE COMMISSION

The State Highway Commission held its regular meeting December 3, at which time contracts were awarded the lowest bidder for road improvement projects amounting to approximately \$3,100,000. The bids on these projects were less than had been estimated by department engineers, thereby saving the state about \$400,000.

Secondary road projects were programmed, contingent upon free right-of-way donations to the state within a 60-day period.

* * * *

Regular meeting dates for the first half of 1954, as set by the Commission, are as follows: January 14, February 18, March 25, April 29 and June 3.



'Tis merrier still
The more that share
On Christmas Day
In the morning!

25 YEAR PINS

When the AASHO met at Pittsburgh in November, a number of our Highway members were honored with certificates and pins for 25 years of service with the Department.

Those receiving this award were: Harold F. Bastian, J. R. Henderson, E. E. Mashburn, W. E. Hicks, W. W. Mitchell, L.A. McCain, R.N. Newsom, and Harry M. Wright.

In prior years 25-year pins and certificates were awarded to the following: 1948, C.A. Shumaker and W. E. Carter; 1950, F. J. Herring, C. Don Hayes and O. A. Tinsley; 1951, George Fry and A. G. Rives; 1952, Alf E. Johnson, E. L. Wales and F. C. Bogart

Now is THE TIME TO

SEND YOUR CHANGE OF ADDRESS
to the
PERSONNEL OFFICE
Arkansas Highway Department
Little Rock, Arkansas **

Valuable time is lost when the mailing address we have on file for you is incorrect. Your Withholding Tax Receipt is one of the times we must mail directly to you. When you change addresses Notify Us Immediately



EMPLOYEE COMMITTEE

TESTIMONIAL DINNER

In order to promote better employee relationships and working conditions, an Employee Advisory Committee has been established to receive and screen suggestions of employees for recommendations to the Director.

J. H. Knott has been appointed Chairman of the Committee with W.K. Bartleson and Nancy Snapp, Members, to serve until June 30, 1954.

The success of the program will depend on your cooperation. Send your written suggestions to the Committee on any subject which you believe will help promote the best interests of the employees of the Highway Department.

NO POLITICS !

A bulletin copy of "Minute Order Number 55," of the minutes of the State Highway Commission, has been transmitted to all employees of the Department.

This Minute Order provides that no employee shall ".....engage in or take part in any political campaign" in relation to matters affecting the Department.

It behooves all employees to read this bulletin very carefully as conformance to the provisions of this policy is required.

Highway Department officials honored the new AASHO president, Alf E. Johnson, with a dinner at Grady Manning Hotel November 30.

A testimonial, prepared by E. E. Mashburn, was read by E. L. Wales as proxy for Mr. Mashburn who was unable to attend. Herbert Eldridge gave a congratulatory speech and Mr. Johnson was presented a scroll which was signed by all present.

Those attending were: Mr. & Mrs. Alf E. Johnson, Mr. & Mrs. Herbert Eldridge, Mr. & Mrs. A. G. Rives, Mr. & Mrs. E. L. Wales, Mr. & Mrs. Geo. Fry, Mr. & Mrs. C. Don Hayes, Mr. & Mrs. Ward Goodman, Mr. & Mrs. Kent Brown, Mr. & Mrs. W.W. Mitchell, Mr. & Mrs. Wm Shumaker, Mr. & Mrs. Dennison Yates, Mr. & Mrs. Russell Henderson, Mr. & Mrs. N.B. Garver, W. R. Thrasher and V. E. Scott.

CONTEST  NEWS

There were 66 titles submitted for the Magazine Contest. These names will be appraised by number and the Judges will not know the name of the winner until the title best suited has been selected. The winner will be notified before the January issue is released.

HIGH-STRENGTH BOLTING

by J. H. Knott, Bridge Designer
Bridge Design Division

Ever since steel has been used in bridge and building construction, the designer and builder have had the problem of fastening the various members together at the joints. Until recently the use of either hot- or cold-rivets has been almost universal for fastening together structural joints. Of course, welded joints have been used to some extent, but due to the uncertainty of testing the weld, bridge engineers, both Highway and Railway, have preferred structural joints to be rivet connected. A new method is now being used with gratifying results; that of high-strength bolts as the connectors.

The high-strength bolt is a new member in the family of structural steel construction. It was only last year that the Specifications for Assembly of Structural Joints using high-strength steel bolts was approved and issued, and we can do a little mild boasting that Arkansas has already used them in several instances with good results and the bridge designers are including them in their structural drawings for steel structures.

Due to long use of the rivet for a fastener and the prejudiced idea it was the perfect fastener because it completely filled the

hole, high-strength bolts has had a tough time elbowing its way into the inner circle. But results speak for themselves and these new fasteners are here to stay.

Let us see what they are, their virtues and their faults, if any. This little but mighty fastener is most unassuming in appearance, really quite ordinary. Just a black colored bolt having a hexagonal head with shaft threaded most of its length with a hex nut and two cut washers. At first glance it will be mistaken for a standard machine bolt with ordinary cut washers. As a matter of fact, it is extremely difficult to tell the difference. The bolt is made from heat-treated, high-strength carbon steel; the washers are hardened and carburized. It's under a load that the dissimilarity is revealed. For example, an ordinary 3/4-inch machine bolt will fail when stressed to approximately 11,000 pounds, but this load is less than 1/3 the strength of a high-strength bolt. When used to fasten a joint of a steel structure, the nut is tightened down with a properly calibrated torque wrench until the required amount of tension for the specified size is reached. This torque wrench is fitted with a

device to measure accurately the amount of force applied to turn the nut. In a joint stressed to such a high degree these bolts produce a clamping force that develops a great amount of friction between the members and the result is a rigid joint.

In construction of small steel structures it is usually difficult, as well as costly, to obtain a crew of experienced men to drive the required field rivets. The same is true in replacing damaged members of steel trusses by Maintenance Forces. Ordinary bolts will not suffice for they work loose under traffic and have to be replaced at much expense. So there was a crying need for a good, comparatively economical, and readily useable fastener. The high-strength bolt is the answer to the builder's and repairman's prayer.

It is not to be construed that the use of high-strength bolts will be economical for all structures. However, it is usually true in field erection of small structures and in repair or maintenance work where they can be installed without bringing an air compressor and forge to the job. On large jobs a saving cannot ordinarily be obtained and economical use of high-strength bolts must be evaluated for each job. It is true the actual cost of placing bolts with pneumatic torque wrenches will usually be less than the cost of heating and driving rivets, but the

manufacturing cost of bolt, washer, and nut is several times that of the plain undriven rivet. Their main claim to fame is they can be installed by unskilled workmen.

Structural designers can adopt the use of high-strength bolts with confidence. There has been much research and experimenting in connection with the use of these bolts. Several large railroads have adopted their use in lieu of rivets which, in certain joints subject to reversal of stresses, worked loose and had to be replaced. After four years it was found the bolts had retained their full clamping force. This is in direct contrast to riveted joints where rivets were driven by maintenance crews, in many instances, every year. Again, in order to study the practical use of the bolts in cold climates, rivets were replaced by bolts in several floor beam hanger connections of riveted trusses where temperature falls to 40 degrees below zero. These have been in place for two winters and have proved satisfactory for that time.

Much research has been made by the Research Council on Riveted and Bolted Structural Joints to determine the strength and action of joints and to promote safer and economical design. Results of the investigations indicate that both cold- and hot-driven rivets, contrary to usual belief, DO NOT completely fill holes in structural

(continued on page 21)

Party Line Parade

— HEADQUARTERS —

STATISTICS & ANALYSES

Bill Headrick - Reporter

The S & A office force entertained with a party which included wives and husbands, at the D.A.V. Home on November 19th. Hot dogs, cold drinks, coffee and cake were served by Katherine Gardner, Mary Lou Bailey and Ruth Cantley. There were 23 guests present for a most enjoyable evening.

* * * *

We are happy to report that Iva Hemphill is back with us and doing fine after her recent operation.

* * * *

W. N. Richardson has returned to work from a 10-day vacation, which he spent in Texarkana, El Dorado and Camden.

* * * *

John C. Langcoy is back on the job after a trip to Black Mountain, North Carolina, where he visited his brother.

* * * *

Marlin A. Powell reports that his golf game could be better. He said that he was even par through the first 4 holes at Memorial Park then on the 5th hole (Par 3) he was lucky to scramble in for 11 (8 over Par). His score for the 9 holes was 43.

CHIEF ENGINEER'S OFFICE

Nancy Snapp - Reporter

A luncheon honoring Helen Tims, bride elect, was given December 2 in the Pirates Cave at Hank's Dog House. The table was beautifully decorated in the bridal motif of white and silver. Helen was given a corsage of white carnations and a gift from our office. Jessie Lee Perry was in charge, assisted by Nancy Snapp and Leontee Connelly. There were 45 guests attending, representing almost every Division of the Department.

Helen will become the bride of Bill Tarkington, of North Little Rock, December 20th at the First Baptist Church in Tuckerman. After a short honeymoon the young couple will make their home in Fayetteville where Bill is attending the University of Arkansas.

* * * *

We are happy to welcome Julia Bumpass, from Pine Bluff, who will take over Helen Tims' desk.

* * * *

We will miss Gene Hawkins, who has been transferred from our office to the Construction Division. However, we welcome Gilbert Smith from Construction and Cameron Lowe from Plans to our group.

Party Line Parade

IBM SECTION

Erma Jetton - Reporter

Betty Jean Penix became Mrs. Don L. Dare November 19. Our congratulations and best wishes for a very happy future together, Don and Betty. The young couple are planning a trip to Chicago December 30.

* * * *

We are glad to welcome two new key-punch operators to our office: Betty Jo Smith and Nadine Trantham.

* * * *

Our heartfelt sympathies go to Gladys and Fred Plunkett in the loss of Fred's father A.N.Plunkett, who died November 10.

* * * *

We are happy to report that Roy Shelby's father-in-law, Charles Winkles, is home from the hospital.

CONSTRUCTION DIVISION

Lucille Schmidt - Reporter

We extend our sympathies to the family of Daniel J. Teeter, who died December 1st. Mr. Teeter was employed as Rodman in Dumas.

* * * *

Everyone is happy to have E. E. Mashburn back working after his recent automobile accident. Mrs. Mashburn isn't letting anything stop her from her usual chores despite a broken arm.

ACCOUNTING DIVISION

Stuart Pattillo - Reporter

The usual surge of winter has taken charge of health conditions with the families of our Division. Grace Zinn, wife of Jimmy Zinn, is convalescing at the St. Vincents Hospital from a pneumonia attack.

* * * *

Mrs. Oscar Martin has also been ill for about 2 weeks, but is now on her way to recovery.

* * * *

Dave Hamilton enjoyed a visit from his son, David C., who is in the investment banking business in New York City.

* * * *

Joe Schamer spent a few days in Houston visiting his daughter.

* * * *

Ona Foster spent a week in New Orleans visiting friends recently. Among many entertainments were the "Races," and her story is she was very successful in picking winners.



"CHRISTMAS GIFT!!!"

Party Line Parade

PERSONNEL DEPARTMENT

Hazel Norman - Reporter

Jean and Harry Redwine and his mother drove to St. Louis, Mo., and Evansville, Ind., during the Thanksgiving Holidays to visit relatives.

* * * *

W. S. Stephens, our building custodian, drove to Memphis the week end of December 6th for a visit with his daughter.

* * * *

Hazel Norman drove to Monroe for a week-end visit with friends and relatives December 5th. She also plans on spending the Christmas Holidays there, which includes a trip to New Orleans for the Sugar Bowl game on New Years Day.

* * * *

Callie Walters plans on a 30-day visit with her daughter in San Antonio beginning Christmas week.

* * * *

Jackie Wallace has been spending most of her week ends in Heber Springs with her grandmother who fell and broke her arm but now that she is doing so well, Jackie plans to fly to Memphis for a week end. Happy landing, Jackie.

* * * *

Birdie Wright, our PBX operator, and Julia Mae Halliburton, of M & T, drove to Newport December 6th and while there enjoyed eating pheasant and quail.

MAINTENANCE DIVISION

Cecil Byrns - Reporter

Patsy Van Pelt, bookkeeper in CS&S became Mrs. W. D. Quattlebaum November 13 in Antioch. Congratulations and best wishes, Peggy.

* * * *

We are glad to report that Donia Stoebener, wife of layout foreman Howard Stoebener of CS&S, is recuperating nicely after an operation.

* * * *

Betty Ozment, Permit Section, is spending Christmas in Oakland, California, with her family.

* * * *

Marilyn McKinney spent Thanksgiving week end in Houston, and plans on spending the Christmas Holidays in Gould with her family.

COUNTY ROADS DIVISION

Zelda Riggs - Reporter

Jack and Mary Teasdale are looking forward to a pre-holiday visit from their daughter, Pat Allen, of Houston, who will return home to spend Christmas with her husband.

* * * *

Eunice Johnson, who is with the R. F. C. at Dallas, will spend the Christmas Holidays with her parents, Zelda and Richard Riggs. We are glad to report that Richard is doing fine after a week's illness.

Party Line Parade

BRIDGE DESIGN DIVISION

Norma Monroe - Reporter

Many happy returns to L. P. Carlson, who celebrated his birthday December 6th. L. P. and Martha are looking forward to the Christmas Holidays when their daughter, Catharine, will be home from Texas State College for Women at Denton.

* * * *

Congratulations to Hazel and Harold Bastian, who will celebrate their wedding anniversary on the 22nd of December

* * * *

Happy birthday greetings to John Hall's daughter, Diann, who will be 2 years old December 28th.

* * * *

The Christmas Holidays will be happy ones for Lillian and J. H. Knott, who are expecting John, Jr. and Richard, who is attending the Siminary in Austin, and his family to be home.

* * * *

Jim Little, a newcomer to our office, will celebrate his birthday December 24th. We will not be seeing Jim around very long as he will be inducted into the Army December 18th. Good luck and best wishes, Jim.

* * * *

Bob Mattox spent the week of November 30 at home with his wife, Adella, and a brand new son.

Veerless Hudspeth took his physical to join the U.S. Naval Civil Engineering Corps Reserve in New Orleans, November 27.

* * * *

Our official duck hunters, L.P. Carlson and H. F. Bastian, report that the Duck hunting below De Valls Bluff was very poor. Better luck next time, we must have that duck feast.

RIGHT-OF-WAY DIVISION

F. C. Bogart - Reporter

A. W. Hardy, Utility Engineer, attended a meeting of the Mid-South Section of the A.S.C.E. in Jackson, Mississippi, December the 11th and 12th. Mr. Hardy was elected vice president of the association to serve for the coming year and we are very proud of him.

* * * *

That fiery red-headed Right-of-Way Agent, George Howell, was off from work on December 3rd and 4th with sinus trouble.

* * * *

We are happy to welcome a new member to our Division, Nancy Sipe, a petite blond who began her "Paying Career" with the Highway Department November 24th. Nancy was formerly associated with her husband, Kenny, at Sipes Shoe Store in North Little Rock (For Free).

Party Line Parade

EQUIPMENT & PROCUREMENT

Mary McLane Hill - Reporter

Our heartfelt sympathies go to Mr. and Mrs. W. P. Vanderburg and family in the loss of their son, Lt. Robert Vanderburg, who was killed in a C-47 crash at Albuquerque, New Mexico, November 18.

* * * *

Mr. and Mrs. Cecil C. Hamrick were visitors in Dallas over the Thanksgiving week end.

* * * *

Mary McLane Hill spent Sunday, December 6, in Russellville visiting her brother and his wife Mr. and Mrs. F. G. McLane.

* * * *

We are glad to report that Ben Renda is doing fine after a bout with the flu.

* * * *

Charlie Steward returned to work December 2nd after several weeks illness. We are happy to have Charlie back on the job.



PLANS & SURVEYS

Myrtle Miles - Reporter

The good old name "Plans Division" that we used so long has now been changed in our new appropriation to that of "Roadway Design," and since that is the label under which we get the pay checks, we shall use it in the future.

* * * *

We are happy to welcome Peggy Beck, new employee in Mr. Fry's office. Peggy is from London, England, and really has that English accent which is very personable, and we hope you will all soon know her.

* * * *

Robert B. Smith, senior designer, plans to spend the holidays with his mother in Jonesboro.

* * * *

Charles E. Hooker and his wife, Jo, drove to Kansas City in a brand spanking-new Ford to spend the Thanksgiving Holidays with their son and his wife.

* * * *

Billy Fred Prince, of Kirby, who is with one of the locating crews, took a few days off to go hunting. Billy met with success and brought in what he said was a 25-point buck??? Billy must have been overcome with Buck-ague, for we have not seen him since - nor have we seen any venison.

Party Line Parade

MATERIAL & TESTS

Julia Mae Halliburton - Reporter

Happy birthday greetings to Ed A. Raugh and B.F. Strange, who are celebrating December birthdays.

* * * *

Congratulations to Robert Donham who celebrated his wedding anniversary this month.

* * * *

Ray B. Johnson, former employee, who is now an instructor at the University of Arkansas, paid us a visit recently.

* * * *

Our Division sponsored a get-acquainted dinner dance at Tiawanna Club December 4, inviting all the husbands and wives. Out-of-Division guests included were: Mr. and Mrs. Herbert Eldridge, Mr. and Mrs. Joe Snapp, Mrs. Bertie Wright and Lt. Lois Putnam. A wonderful evening was enjoyed by all.



DISTRICT 1

WYNNE

Mildred Stacy - Reporter

Wedding bells chimed for Grace Dunlap and Henry H. McMillon, Jr., November 7. The young couple will make their home in Holly Grove. Our best wishes for a happy future to the new Mr. and Mrs.

* * * *

James and Leota Hamilton spent a pleasant week end over November 21 with their son, Ed, who is attending Tech at Russellville, the occasion being Dad's Day.

* * * *

We extend our sincere sympathies to B. J. Hale in the loss of his aunt, Mrs. Willie Smith, who died November 28 at Biscoe.

* * * *

We are glad to report that Henry Bright, mechanic, is back at work after being off with a back injury.

* * * *

The Nunnallys - G. E., Jeanette and Anne - spent Thanksgiving with Mr. Nunnally's parents at Strong.

* * * *

Charles and Theresa Kelly have just returned from a vacation in Wichita, Kansas, where they visited their daughter, Theresa Davis, and son, Lindy Kelly.

* * * *

Lawrence Hunter has been transferred from Wynne to Marion because of the illness of his wife.

Party Line Parade

DISTRICT 2 PINE BLUFF
Inez Royston - Reporter

Congratulations to Inez Royston who celebrated her 30th anniversary with the Highway Department on December 3. Inez has been employed at the District 2 office in Pine Bluff for the entire 30 years. This is quite a commendable record and one which we believe will be hard to top.

* * * *

Ben F. Jackson was ill several days with the flu but is doing fine now. Walter Combs was also out a couple of days with the flu, though he is back in harness again, and going strong.

* * * *

Mr. and Mrs. H. R. Lucas entertained at their home in Mammoth Springs, Thanksgiving. Out-of-town guests included their daughter and her children, Mrs. Plochberger, Barbara and Hannah, of St. Louis; and Mr. and Mrs. Ames and their son Jack, from Garden City, Kansas. There were 18 guests present.

* * * *

O. V. Williams, mechanic, is redecorating the interior of his home with sheet-rock and doing the work himself at night and on Saturdays. The children have selected the colors for their rooms and Dad is complying. O. V. has been with the Department about 7½ years.

Mr. and Mrs. Glen Jacks announce the marriage of their daughter Glenda to Billy Summerford.

* * * *

W. P. Johnson, his wife and daughter, have moved into their new home in Monticello.

* * * *

Joe Hays, his wife and 4-year-old daughter, Barbara, have moved to 1103 Ohio St., Pine Bluff.

* * * *

Congratulations to Frances and Roth Rabb, proud parents of an 8-pound 2-ounce daughter, Marcia Fay, born October 31st. Roth has been with the Department 10 years.

* * * *

Mr. and Mrs. Garland Vick spent the week end recently with their grandchildren in Oklahoma City.

* * * *

Ralph Morrison reports that he tried his luck at deer hunting and bagged a 6-point buck in Grant County. J. L. Goins, better known as "Blondy," also tried his luck and while he failed to bag a deer, said he enjoyed the outing. Espie Bennett was among a number who went deer hunting and while he was not lucky there were 4 deer killed in his camp. Charlie Earnest decided to hunt for deer just back of his home, alone, and killed a 4-point buck! His description of how he struggled to get that deer to his home, is quite a story.

Party Line Parade

DISTRICT 3 HOPE
Olive Jackson - Reporter

We are glad to report that Lester Purtle, maintenance foreman in Nevada County, who was injured in an automobile accident 12 miles south of Prescott November 26, is improving. Lester received very painful side and chest injuries, and his right foot was severely bruised in a head-on collision with another car. Both cars were badly damaged.

* * * *

A/1c Bobby Haynie, Chanute AFB, Illinois, will be home on December 18th to spend the Christmas Holidays with his parents, Lula and Loyd Haynie.

* * * *

Mr. and Mrs. Earl Thompson, of Washington, announce the marriage of their daughter, Georgia Ruth, to Elmer Clark, son of Mr. and Mrs. G. C. Clark of DeAnn, on Saturday evening, November 21st. Georgia's Dad is maintenance bridge foreman and her bridegroom is with the maintenance forces in Hempstead County. Congratulations and best wishes for a happy future together Georgia and Elmer.

* * * *

We are very glad to report that Hershel Taylor, who has been ill the past 2 weeks, is recovering and expects to be on the job soon.

Congratulations to Margaret and Conrad Lewis, DMF, who celebrated their 23rd wedding anniversary December 6. May you enjoy many more happy years together.

* * * *

Many happy returns of the day to Georgia Whittemore, who will celebrate her birthday December 21.

* * * *

The newlyweds Betty Linda and Sgt. Johnny Guidos, Ft. Smith, spent Thanksgiving week end with Betty's parents, Mr. & Mrs. C. G. Tittle.

DISTRICT 4 Ft. Smith
Margaret Allen - Reporter

We extend our deepest sympathies to E. N. Andrews, whose wife passed away November 13.

* * * *

Our best wishes for a speedy recovery to Art Ridenhour, who was injured November 21.

* * * *

Bob Gray, DMF, spent the Thanksgiving Holiday week end with his sister in Little Rock.

* * * *

We are happy to report that the condition of Oscar Gwyn's wife has improved to such an extent that she was allowed to leave the hospital the last of November to continue her recuperation at home.

(continued on next page)

Party Line Parade

DISTRICT 4 - continued

Best wishes to Margaret Allen and her husband who will move to Little Rock, the last of the month, where he has been transferred. Margaret has been with the Highway Department for 12 years, having started with the Accounting Division, Little Rock, in 1941. She was transferred to the District 4 office in December 1947; was made bookkeeper in 1948, which position she has held since that time. You will be missed, Margaret, but we all hope you will be happy in Little Rock.

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Fay Carter will take over as your magazine reporter in the District 4 office at Ft. Smith. She will appreciate your cooperation in helping her to gather new items of interest about employees and their families in your District. Deadline for news to your reporter is the last day of each month.

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Welcome home to Willis E. Thomas and Tom J. Atchley, former members of the Highway Department, who are back with us again.

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We are glad to welcome the following new employees to our Highway family: C. H. Gregory, C. S. Qualls, Dave D. Smith, and Donald R. Cox.

DISTRICT 5

BATESVILLE

Mary Lee McCown - Reporter

Congratulations to Bernard and Elizabeth Rice, who are the proud parents of a 7-pound 4-ounce baby girl, Elizabeth Ann. The new queen of the Bice household was born at Dr. Gray's Hospital at Batesville.

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Charlie and Hazel Matthews and daughters spent Thanksgiving in Lake Village, their former home.

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Robert L. Simmons, bridge crew member, lost the second and third fingers on his left hand recently while working with a skilsaw.

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Leck Owens took off the first of December to hunt birds. He reports the birds were few but he had a lot of fun scattering the feathers.

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Charles Houston, night watchman, has been ill but expects to be back on the job soon.

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Our best wishes to Mary Lee McCown, who reported at the Mayo Clinic, Rochester, Minnesota, for a medical examination December 5.

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Hillman and Reba Watkins and son, Kenry, spent the Thanksgiving Holidays in Harrison.

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NO LEGACY IS SO RICH AS HONESTY!!!

Party Line Parade

DISTRICT 7

CAMDEN

Sula Barnham - Reporter

Chief Lincoln Benton, Marie and Gary have returned to Norfolk, Virginia, after a 2-week visit with Hugh and Gladys Anderson. "Grandpa" Anderson has had a long, long face since they left.

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We are glad to report that Joe Simpson, who broke his hip November 20th, is rapidly improving and expects to be back on the job soon.

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Our deepest sympathies to Sula and Harlan Barnham in the loss of his mother, Mrs. Ida Lee Barnham, who passed away December 5.

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Virginia Hicks of Tulsa spent the Thanksgiving Holidays with Mr. and Mrs. W. E. Hicks.

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Dewey Brandon, area foreman of Calhoun County, says he stuck a thorn through his right hand while removing a dead hog from the pavement on Highway 167 — but where did the thorn come from, Dewey????

* * * *

Maxwell Smith was in Little Rock the week end of November 21 and attended the Arkansas-LSU game.

* * * *

We were glad to have a visit from G. E. Nunnally who was in our District November 27.

DISTRICT 8

RUSSELLVILLE

Mary Alice Poteet - Reporter

W. F. and Mrs. Turner drove to Dallas for the football game the week end of November 14th. On the way home they stopped for a visit in Texarkana with their son Robert and his family.

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Roy Taylor, fuel clerk, entertained his sister and her husband, C. R. Teeter, the Superintendent of Schools in Star City over the Thanksgiving Holidays.

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We are happy to report that G. E. Rye, painter, who has been ill is back at work and doing fine.

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Henry Vic, night watchman, was happy to have his daughter and her husband, Goland Cobb, and son of Paris visit with him during the Thanksgiving Holidays.

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Congratulations to Mr. and Mrs. Loyd Bates, who are the proud parents of a new son, born December 6. Loyd is a bulldozer operator.

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Mr. and Mrs. Reece Batson, of Dardanelle, were happy to have their daughter and her husband, Loyd Pearce, and sons, Mike and Pat, of Little Rock, as guests over the Thanksgiving Holidays. Reece is District maintenance foreman.

Party Line Parade

DISTRICT 9 HARRISON
Shirley Morton - Reporter

W. H. and Mrs. Cook enjoyed a vacation in south Arkansas during Thanksgiving week. While in Pine Bluff, W. H. went duck hunting.

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W. H. Porter and his family spent the Thanksgiving week end with his son, the Rev. W. H. Porter, Jr., in Baton Rouge, Louisiana

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Our heartfelt sympathies go to C. W. Deakins, whose little grandson died November 21 at Little Rock. Funeral services were held in Harrison, November 23.

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We are sorry to hear that Bert Horton, patrol operator of Marshall, suffered a heart attack recently and will be unable to continue with the Highway Department. Our best wishes for your recovery, Bert.

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Connie Mack Milum, 20-year-old son of R. A. Milum, was inducted in the Naval Air Force at Memphis, November 26.

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C. C. Holmes and his family are visiting relatives in Oklahoma for a few days.

We were happy to have Hilman Watkins from District 5 visit us when he was in Harrison.

We extend a welcome to Mrs. Bernese Davidson our new clerk at Henderson Ferry. We are also happy to welcome two new employees to the District office: Newell Foley, mechanic; and Paul Byrom, new job superintendent.



DISTRICT 10 PARAGOULD
Lottie Brown - Reporter

Margie Bramlett has been re-employed by the Highway Department as assistant district storekeeper, after a 6-month absence. Welcome back home, Margie.

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Letha Ramsey spent Thanksgiving in Fayetteville with her son, who is an art major at the University of Arkansas.

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Congratulations! John and Betty Killingsworth, who celebrated their 7th wedding anniversary on the 7th of December. We wish you many more "happily married" years together.

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The stork is still hovering over the home of the Jess Rush's. We, in District 10, are eagerly awaiting the wee one's arrival

give us much better data. It is being used by many other states.

Speed and delay studies are made in congested areas to find the amount, causes, location, duration and frequency of traffic delays. We use a riding check method to make these studies. A driver floats along with the traffic with an observer in the car who carries a stop watch and records distance, time of each stop and start, cause of stop, and other pertinent facts. These surveys often show unsuspected causes for traffic delays.

In studying the need for traffic signals we use the "Manual on Uniform Traffic Control Devices for Streets and Highways," which has been adopted by all the states. A common misconception in traffic control is that signals are the answer to all traffic problems.

Perhaps the most prominent and certainly the most publicized issue in traffic control is school crossing protection. We have conducted surveys at many schools and recommendations from these studies call for crosswalk painting, pavement stenciling, special signing, and in some cases, signalization.

This gives only a brief synopsis of the functions of traffic study, touching upon the major uses to which it is put today. Yet more and more specific purposes, which the data may ably serve, are being developed all the time.

members but provide certain amount of clamping force between rivet heads so the load is transferred from member to member by friction. This clamping force results from cooling and consequent shrinkage of rivets and varies with the grip, becoming greater as grip of the rivet increases. Greater clamping force can be secured by the use of high-strength bolts, and, in addition, this clamping force is constant for all grips. This clamping force is most important in the strength of fastening joints. The tighter the members are clamped together, the greater the fatigue strength of the bolts, so it adds up that the fatigue strength of joints fastened with high-strength bolts is considerably greater than those fastened with either hot- or cold-driven rivets.

Summarizing, use of high-strength bolts is thoroughly practical. Cost is not only competitive with rivets or other fasteners but often lower. Also, they provide much greater strength in many instances, which is most important. Their fullest possibilities have not been attained, but with continued use and the experience gained our knowledge of their value will, no doubt, increase. It is surely no exaggeration to say that the development and use of high-strength bolts has been a major contribution to the structural engineering profession.

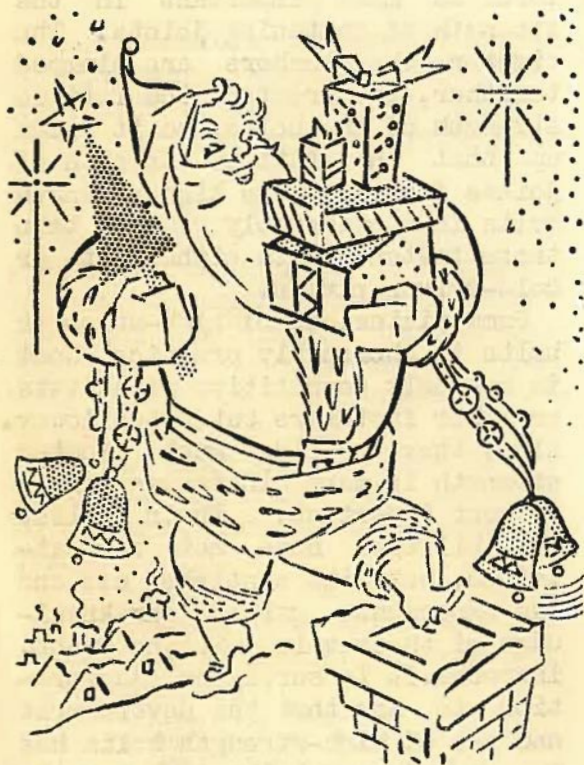
from the Editor . . .

THE SPIRIT OF CHRISTMAS

The Spirit of Christmas is a spontaneous drama of unselfish giving, not only of material things but of self. While its real significance is religious and Christmas is kept by many people of all faiths and creeds, it must not all be solemn and serious for it is a time for conviviality and good will, of family gatherings, and good cheer for all of our fellowmen.

Customs and legends of many lands have become traditional in our wonderful celebration of the birth of Christ, giving us many symbols which we associate with Christmas. The Star of Bethlehem, angels, cribs, wreaths, candles, trees, bells, Carols, reindeer, Santa Claus, exchanging of gifts, and many others too numerous to mention, yet through these symbols shines a ray of purest light proclaiming to all that with the birth of the Christ child there was born a love with the power to bring hope and salvation to a despairing world.

The custom of exchanging gifts, is older than Christmas, but when this ancient tradition became a part of the Christmas season it came into vital contact with a concept which transformed it, through the life of Jesus, into a custom of unselfish interest in the happiness of others.



Merry Christmas



Each year we return to the fairyland of Christmas festivities and see through the eyes of children, with each succeeding generation, and become as children ourselves in our desire to create a happy and merry atmosphere for those around us. A child is glad to express sentiment and we are Oh So Glad! to receive it - and yet only at Christmas do we lower the shutter and reveal our hearts by expressing our love and eagerness to give joy to others.

For the most part our gifts deal with small wants, joys, and tokens of friendly feelings - but no matter how expensive or how trivial the gift, it is the spirit in which it is given that makes it cherished because the love contained in it continues long after the gift is gone.

It is true that the Christmas Spirit has become somewhat commercialized, but it is a good thing for everyone to find a place in his heart and home for the true Christmas Spirit, and it is a wise and wholesome custom when men stop work and make merry together. It is through this means that we may readjust our sense of values and discover the precious and separate it from the unimportant.

The joy of Christmas is too fine a thing to occur in our lives only one day and night in a year - so why not fill every day with The Spirit brought into existence by Christmas by living the life that Christ would have us live. If we: consider what we owe the world, not what the world owes us; remember what others have done for us, not what we have done for others; put our rights in the background and the rights of others in the foreground; ask ourselves how much we love our friends not how much our friends love us; try to be kind, gentle, and thoughtful in all we do and say, then we will find a happiness within ourselves that will radiate to all with whom we come in contact. Let's show our appreciation of the greatest gift this world has ever known, the gift of Hope which Jesus gave us, and retain the Spirit of Christmas throughout the entire year.---HSE

Mr. J. M. ...

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