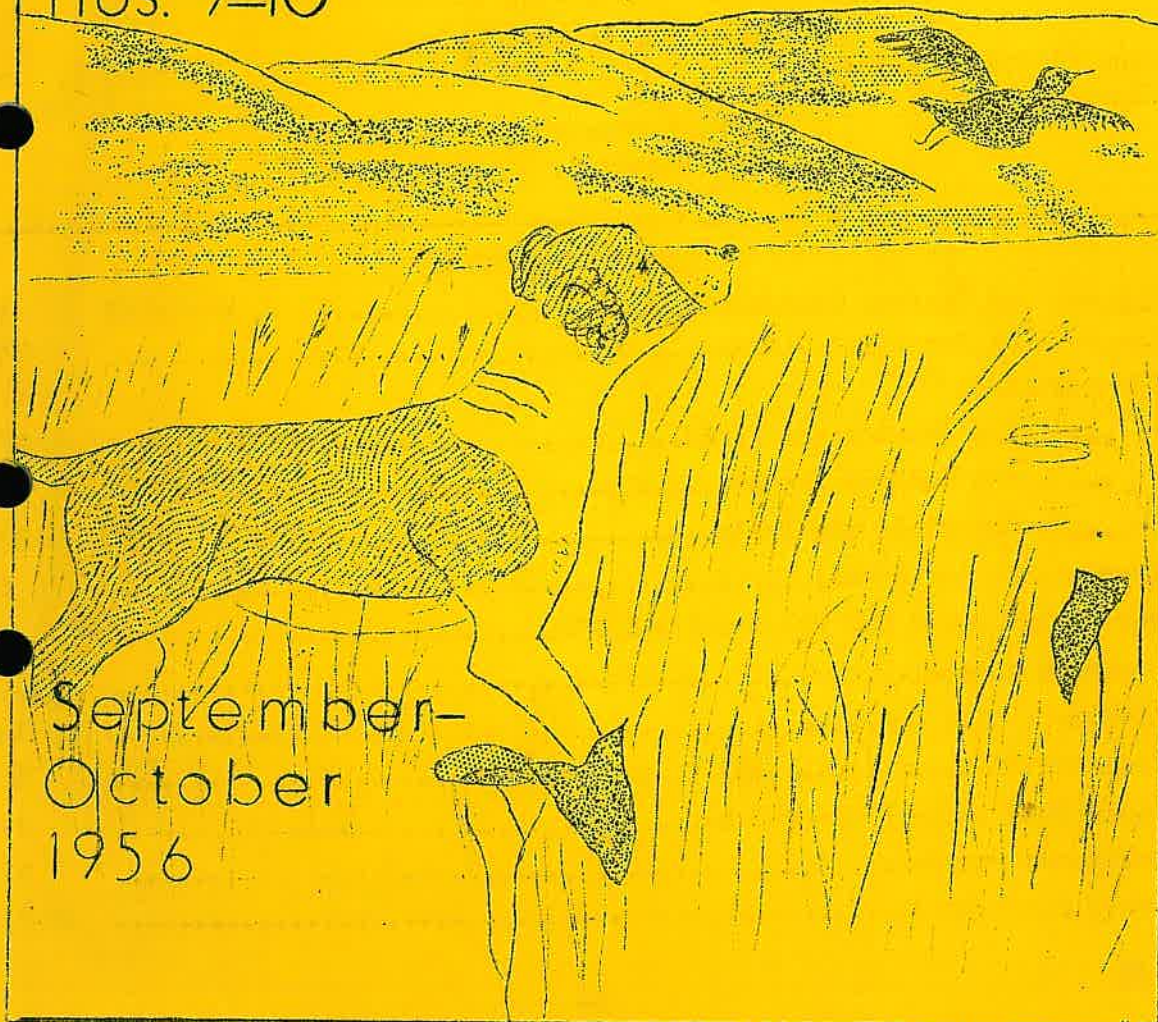


ARKANSAS HIGHWAYS

Vol. IV

Nos. 9-10



September-
October
1956

ARKANSAS HIGHWAYS

A Monthly Magazine for Employees of the
Arkansas State Highway Commission

VOL. IV

September-October

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STATE HIGHWAY COMMISSION

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Glenn F. Wallace

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AUGUST-SEPTEMBER CONTRACT AWARDS

Columbia County. No. 79, 600 feet reinforced bridges; 78.2 feet embankment, Magnolia-Emerson Road, to D & W Bridge Co., North Little Rock.

Conway County. No. 9, painting river bridge, Morrilton-Oppelo Road, to Randall H. Sharpe, Oklahoma City, Oklahoma.

Craighead, Mississippi Counties. No. 158, 7.613 miles grading, Caraway-Junction 77 Road, to BucTon Construction, Hazen.

Crittenden County. No. 70, 4303.83 feet bridge widening, Little Rock-Memphis Road, to E. E. Barber Co. Fort Smith,

Garland County. Nos. 70 and 88, 6.150 miles resurfacing to Southeast Construction Company, Pine Bluff.

Howard County. Nos. 24 and 27, 2.180 miles resurfacing in Nashville, Tecon Paving Co., Dallas, Texas.

Lincoln County. No. 65, 11.408 miles of resurfacing, 2 culverts, Pine Bluff-Dumas Road, Reynolds & Williams Co.

Lonoke County. 1.419 miles surfacing, England-Wabbaseka County Road, Linwood Smith, Lake Village.

Miller County. No. 71, 1.720 miles base and surfacing, Tecon Paving Co.

Miller, Lafayette, & Columbia Counties. No. 82, 3.000 miles resurfacing, to R. H. Davis, Stamps,

Ouachita County. No. 7, 3.010 miles of resurfacing, Graves Brothers, Pine Bluff.

Pulaski County. No. 65, 5.800 miles resurfacing, Little Rock-Conway Road, Ben M. Hogan. 0.673 miles grading, curb and gutter, Little Rock, Artie Gregory, Inc.

Sharp County. No. 115, 5.246 miles loading, hauling, base course, Cave City-Imboden Road, Four Brothers, Sweet Home.

Boone County. No. 14, Omaha-Lead Hill Road, 10.362 miles grading, resurfacing, D. F. Jones Construction Co., Little Rock.

Carroll County. No. 68, Huntsville-Harrison Road, 14.795 miles grading, base, to M. E. Gillioz, Monett, Missouri.

Clark County. No. 51, Arkadelphia-Boswell Road, 8.064 miles base, resurfacing, to Ben M. Hogan.

Conway County. No. 92, Springfield-Junction, No. 9 Road, 3.588 miles base, and resurfacing, to Southeast Construction Co., Pine Bluff.

Faulkner County. U. S. 65, 4.750 miles resurfacing, Little Rock-Conway Road, Ben M. Hogan, Little Rock.

Mississippi County. 0.916 miles surfacing, Wilson-Mississippi River Levee Road, Memphis Stone and Gravel Co., Memphis.

Monroe County. U. S. 70, 7.242 miles of grading, hot mix base, and resurfacing, DeValls Bluff-Brinkley Road, West Memphis Asphalt Co., and A. E. Rains Construction Co., West Memphis.

Pope County. No. 105, 4.208 miles base and resurfacing, Atkins-Hector Road, to Reynolds & Williams, Little Rock.

Pulaski & Jefferson Counties, U. S. 65 and 79, 0.522 miles grading, resurfacing, Little Rock-Pine Bluff Road; remodeling 1 bridge, Pine Bluff-Stuttgart Road, to Mississippi Valley Contracting Co.

St. Francis & Crittenden Counties. U.S. 70, 33.288 miles resurfacing, Brinkley-West Memphis Road, Ben Hogan & Co.

Woodruff County. No. 39, 9.695 miles of grading and gravel base, Hillemann-Morton Road, to Mississippi Valley Contracting Co., Paragould,

HIGHWAYS AND TRAFFIC ENGINEERING

by Y. W. Whelchel
Traffic Supervisor
Statistics and Analyses Division

The service Division of Statistics and Analyses is composed of six sections, two of which are our Traffic Analysis and Traffic Engineering Sections. At the present time, we have approximately 35 employees working on the different phases of the traffic analysis.

Traffic Recording

No doubt many of you have seen the rubber tubes placed across the highways in our State. These tubes were placed there to actuate our traffic counters. Some of you live or work in an area where we have permanently installed recorders distributed geographically over the State. These recorders are located on all types of roads carrying different volumes and on roads having different traffic characteristics. They have been operating at their present locations since 1938. We learn a lot from studying the traffic counts of these recorders. They tell us the hourly number of vehicles using the roads each day, each week, each month, and each year. They are our basic gauge to measure the increase or decrease of traffic volumes. In recent years, any decreases in traffic volumes have been confined to very few roads.

We also supplement these automatic counts by the use of some 200 portable traffic counters to make regular short-period traffic counts at all the major intersections and at more than 1,000

different locations along the highways, at least 4 each year, and 1 each season. By relating these short-period counts to our continuous counts, we are able to determine, fairly accurately, the annual average daily traffic volumes using our roads. The regular counts are, in turn, supplemented by many special counts to determine traffic characteristics and volumes at still more locations.

Determining Exact Count

In almost any discussion pertaining to traffic counting by machine, one of the questions invariably asked is: "Since these mechanical devices are actuated by the wheels of vehicles running over the rubber tube, what happens when a 3- or 4-axle tractor-truck and semitrailer run over the tube?" The answer is that it takes 2 axles to make the recorders count 1 unit. In other words, the recorder will count $\frac{1}{2}$ for each axle. Consequently, a 3-axle truck will register $1\frac{1}{2}$ vehicles and a 4-axle unit will register 2 vehicles. Now, in order to determine the percent of overcount which that causes and to compensate for it, we make manual classification counts at different locations on all types of roads and on roads carrying all volumes of traffic. These manual classification counts also give us much needed and valuable information as to the composition of the traffic using our roads.

Data Tabulated for Convenient Use

When a new highway is to be built, or an old one improved, it is necessary that we know what the traffic volumes will be, what type of vehicles will be using the facility, what the loads will be and what the dimensions of the vehicles will be, so that the facility can be structurally and geometrically designed to serve the traffic that will be using it.

Each year during a 2-week period, this Division makes what we call a "Loadometer Survey." In addition to axle weights, we obtain other statistical data on trucks, such as: wheel bases, over-all lengths, heights, tire sizes, origins, destinations, commodity carried, and so forth. Year-to-year comparisons of these data give us valuable information on the trends in trucking practices.

Special traffic surveys, such as the Origin-and-Destination studies, are made to determine where motorists are coming from and where they are going. Based on these data, new roads can be located to assure the most practical and efficient use. Existing facilities can be improved to better serve the motoring public. Bypasses can be located to serve the greatest number of people and to relieve congested areas of traffic that "does not want to go there, anyway."

The factual data obtained by our field crews are analyzed studied and tabulated. It is set out in tables or tabulations, on maps, in charts or graph. One of our most commonly used media is the annual Traffic Volumes Maps on which we show the 24-hour annual average traffic volumes along the rural highways on our State

System. Individual County Traffic Maps are also distributed to show the traffic volumes on all State and county roads in each county. Vehicle mileage tabulations are prepared to show number of vehicles per mile per day on each route and section of highways, and are used in highway programing, as well as being widely used in other governmental agencies and in private industry.

Traffic Engineering

There is a tremendous amount of good work being accomplished in our Traffic Engineering Section, which has been expanded to offer better services to the Highway Department and to the people of Arkansas. Officially defined, traffic engineering is "that phase of engineering which deals with the planning and geometric design of streets, highways, and abutting lands, and with traffic operation thereon, as their use is related to the safe, convenient and economic transportation of persons and goods."

Evidence of some of the work of this Section is showing up in the form of channelized intersections and special applications of traffic control devices, such as: traffic signals; elimination of accident-inducing factors created by sight-distance restrictions, awkward and inadequate turning radii at intersections; and many others.

One of the most important functions of this Section is its work with cities, towns, communities, and schools, in their efforts to reduce traffic hazards along the highways through their respective jurisdictions. No one realizes more than the traffic engineer the importance of

uniform traffic control devices, which are defined as: "All signs, signals, markings, and devices placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic."

By State law, the Highway Commission is delegated the authority and responsibility to regulate and control the erection of all traffic control devices on the State highways. Act 300 of 1937, reads: "No local authority shall place or maintain any traffic-control device upon any highway under the jurisdiction of the State Highway Commission except by the latter's permission."

Possibly for several reasons, this authority has never been rigidly exercised. One of the reasons being that local jurisdictions oftentimes are not aware of the law requiring permission from the Highway Department before erecting signs, signals, or some other local attempts to regulate traffic. Some local officials know that they should request this permission, but they are also aware of the past practices of the Highway Department in not exercising their authority and, in their hope or belief that the Department will not object, they go ahead and erect whatever control devices they can buy or devise for the least money without regard to proper standards.

This practice has resulted in a lot of unauthorized, nonuniform, substandard traffic-control devices being erected on our highways. Some of these devices cause unnecessary delays, develop unenforceable situations, and sometimes actually create more hazard than existed prior to their installation. Many towns and communities

have had the disastrous experience of trying to control or regulate traffic by locally devised means which have resulted in serious accidents because the devices were not uniform or were misused. Any traffic-control devices, other than the ordinary, commonly used signs and markings, should never be erected until a thorough engineering investigation, or study, has been made to determine what is actually causing the trouble.

Mutual Cooperation Benefits All

A lot of progress has been made in the last few years in our working relations with these local groups. The expansion of this Section has enabled us to make more special traffic engineering studies to assist the town, communities, and schools with their traffic problems. Where we have been called upon for assistance we have been very successful in demonstrating to the local people the advisability and desirability of using uniform, accepted, and proved methods to reduce the traffic hazards.

Traffic signals are a necessary and very effective traffic-control device if they are used properly. Their misuse can have unfortunate and, sometimes, even tragic consequences. It is not at all uncommon for us to receive a request from a town for permission to erect a stop signal at some troublesome location only to find, after a study has been made, that the condition which exists at the location could not possibly be corrected by a traffic signal.

An engineering study will very often reveal that improper and illegal parking practices, poor pedestrian habits, lack

of sight distances caused by shrubs, hedges, improperly located signs, or any of a dozen other similar causes are contributing to the accident potential and that a signal will only augment the hazard and add to the general confusion. Further, the engineering investigations usually reveal certain simple remedies that will greatly reduce the existing hazards and yet will not unduly restrict the traffic movement.

We also find many instances where a survey will show that a traffic signal, if properly designed and properly timed, will work to an advantage. Yet the local officials, because they do not know the various functions and applications of traffic signals and do not have the technical knowledge to prepare detailed specifications which will meet the requirements of uniform signals, will often buy the cheapest signal that they can find. There are mail-order houses which specialize in equipment and supplies for municipalities. Most of the products from these houses are not standard and do not meet the specifications in workmanship, materials, and performance for use in this, or any other, State.

All Department employees are regarded by the people as representatives of the Highway Department. When the people in your District, your county, your town, or your community have a problem concerning the highways or highway traffic, it is only natural that they want to discuss it with someone they know, who works in the Department, or to ask for advice. When this happens, you can do a service both to the Department and to the community if you will advise them of the proper course to take or how to get their problem before the right authorities.

In the case of traffic problems, if you will advise the people who question you that the Department has a Section which will be glad to work with them in their efforts to reduce the traffic hazards and also tell them who to contact, we can eliminate a lot of needless restrictions and improve the safety conditions along the highways. Always tell these people to contact your District Engineer or Division Head who, in turn, can refer the matter to the Division of Statistics and Analyses so that a survey can be made and correct measures taken to overcome the difficulty.

REFRESHER COURSE FOR PROSPECTIVE RPE'S

Beginning September 1, approximately 10 applicants for the Registration of Professional Engineers participated in a 6-week refresher course conducted in the Commission Hearing Room at Little Rock. Instructor Pat Huddleston, Senior Roadway Designer of the Roadway Design Division, efficiently conducted a 2-hour class each Tuesday and Thursday evening on such subjects as math, physics, hydraulics,

mechanics, and strength of material, to prepare the applicants for their final examinations October 12 and 13.

Most of the applicants were employees of the Highway Department with a desire to become Registered Professional Engineers and enhance their opportunities for promotion and a successful Highway career. Those interested in taking future courses should contact Mr. Huddleston.

AUGUST-SEPTEMBER PREVENTABLE ACCIDENTS

Division 1 - Total 3

8/1/56, stuck thorn in ankle while he was cutting right-of-way.

8/3/56, broke foot while loading cement.

8/8/56, employee struck by lightning in heavy rain storm.

8/11/56, mashed thumb changing blade.

8/13/56, cut finger on culvert pipe.

8/17/56, injured shoulder while wrecking concrete forms.

8/24/56, injured fatally by train.

8/27/56, injured back shoveling sand.

Division 2 - Total 1

8/15/56, fell while removing signs and received broken bones in foot.

Division 3 - Total 5

8/2/56, cut finger when file slipped

8/17/56, rust from fan flew into eye.

8/20/56, strained ligaments and bruises received in a fall.

8/21/56, stuck nail in left foot.

8/22/56, sprained wrist from a fall.

Division 4 - Total 2

8/20/56, automobile accident.

8/20/56, injured back pulling limbs.

Division 5 - Total 4

8/1/56, automobile accident.

8/2/56, injured fatally by a truck.

8/22/56, automobile accident, no injury.

8/24/56, bruised left side.

Division 6 - Total 7

8/7/56, jack hammer hit side of head.

8/20/56, concrete poisoning on foot.

8/20/56, concrete poisoning on foot.

8/21/56, foreign object in left eye.

8/22/56, injured wrist on truck.

8/23/56, concrete poisoning on foot.

8/31/56, stuck piece of steel in finger, while tearing out culvert.

Division 7 - Total 4

8/9/56, dropped steel post on finger.

8/15/56, burned face, arm, and hands when fumes exploded.

8/21/56, pump point fell, mashing toe.

8/24/56, bolt of stringer injured leg.

Division 8 - Total 1

8/16/56, jack handle slipped, causing him to fall, injuring elbow on rock.

Division 9 - Total 4

8/3/56, employee jumped from machine when about to overturn and injured knee.

8/10/56, cranking motor and sprained arm.

8/13/56, caught foot and sprained toe.

8/29/56, automobile accident, no injury.

Division 10 - Total 1

8/24/56, slipped and broke ankle.

State Construction Division - Total 1

8/20/56, broken bones in leg and ankle.

Division 1 - Total 4

9/19/56, automobile accident, no injury.

9/20/56, injured shoulder cranking motor.

9/20/56, stepped on steel, injured foot.

9/21/56, lifting bridge lumber and injured right shoulder.

Division 2 - Total 1

9/18/56, stuck splinter in thumb.

Division 3 - Total 1

9/17/56, caught finger in steering wheel.

Division 4 - Total 0

Division 5 - Total 4

9/14/56, dropped battery, breaking toe.

9/17/56, injured back lifting cement.

9/18/56, cut left hand, 3 stitches.

9/25/56, crank slipped hitting employee in mouth, had to have 2 teeth removed.

(continued on page 21)

PROGRESSIVE PERSONNEL CHANGES

The new Highway Bill has given the Department and its personnel new hope and a bright horizon to work toward in our efforts to attain those things we have long tried diligently to accomplish for our State and the people of Arkansas. Even the most skeptical person can now accept the realization that our goals will be achieved and the good work we have done through ingenuity, the sweat of our brows, and doing the best we could with what we had, has not been in vain but has produced a solid foundation and built firm, steady steps for our climb up the ladder to attain far-reaching goals.

The tremendous expansion program now in progress makes it imperative that the abilities of each of our staff members be utilized to the fullest extent. Therefore certain changes have been made, and will continue to be made, in an endeavor to create maximum efficiency and production. The latest change in this respect was the transfer of Dennison F. Yates from the Personnel Division to the Office of the Chief Engineer where his capabilities and Departmental know-how could be used to great advantage for the Department and where he could be given an opportunity to go on to a higher position.

A key man in our organization, Mr. Yates has been with the Highway Department as the Director of Personnel for 7 years. He was first employed with us as an auditor and is well-acquainted with figures, a necessary requisite in his new position. He attended Ouachita College at Arkadelphia as a psychology and economics major, an educational background which should be

of benefit to him in overcoming any difficulties encountered in his new work. Mr. Yates is well-known for his social and religious work, as well as his work in personnel. He and his wife, Virginia, are justifiably proud of their wonderful family of two married daughters, a granddaughter, and four sons, one of whom is now serving in the Armed Forces.

Fred C. Tanner, our new Director of Personnel, is a newcomer to our organization and we take this opportunity to offer him a warm and sincere welcome. Mr. Tanner is a personable young man with great potentials for a brilliant Highway career. He was born in England, Arkansas, and attended the University of Arkansas, majoring in business administration. He has been employed for the past 6 years as Executive Assistant Manager of the Albert Pike Hotel in Little Rock. His instinct for tact and diplomacy is probably an inherent trait, but whether innate or carefully developed, this is an essential attribute for personnel work.

Mr. Tanner and the lovely Miss Dorothy Brittain were married in 1949. They have a 3-year-old son, Fred Jr., and a brand-new bundle of heavenly femininity, Martha Sydney, born October 6. The Tanner's are building a new home in Meadowcliff Addition, and for a while it looked like it might be a photo finish on the time the blessed event would occur and when the house would be ready for occupancy.

To both Mr. Yates and Mr. Tanner, we offer the hand of friendship and cooperation with our best wishes for success and happiness in their new Highway work.

THE CHALLENGE ---

...In the Maintenance Field

by Gerald R. Sisk
Assistant Maintenance Engineer

The Arkansas Highway System consists of a little over 10,000 miles of highways on which there are 4,024 bridges with a total length of almost 100 miles. This represents an investment by the people of approximately \$400 million.

It is the function of the Maintenance Division to constantly preserve the highways and bridges in that condition which existed when the construction was completed and they were turned over to this Division for attention; also, to accomplish improvements and betterments which can be done during regular maintenance work. This presents a challenge to the maintenance engineer because the ever-increasing traffic volume and heavy loads cause deterioration that must be repaired immediately with a minimum of equipment, man-hours, and money. More engineering skill and knowledge is required maintaining a road than is needed in construction. When a construction engineer completes a job, he moves on to another...and any failures which develop are the worry of the maintenance man.

Our work must be done under traffic with as little delay and inconvenience to the traveling public as possible. We must live with our roads all the time, and new problems crop up every day. Whenever a failure occurs, we must first determine what it will take to repair it. Sometimes

it is necessary to make temporary repairs until we can get materials and equipment to make the permanent one. Soil types and traffic conditions are so variable that almost every failure in road surfaces calls for a different treatment.

The job of patching holes in bituminous pavements may appear a simple one, but research organizations and all the highway departments are constantly trying to develop materials and methods which are more suitable for this job. Bituminous material used in sealing operations needs improvement. We need a material which, when applied to the road surface and covered with mineral aggregate, will hold the aggregate so that it won't be picked up and thrown by vehicle tires.

One of our big tasks each summer is mowing the rights-of-way. It seems that we just can't get enough mowers to keep the weeds, grass, and brush down...but I believe that in the near future we will have chemical control through the use of herbicides. The chemical companies are making great strides in this field, but those materials which we have tried are not entirely satisfactory as yet.

Most of our major bridges at the river crossings are 20 years old, or older, and the basis of design has been exceeded many times...yet they must be maintained in a safe and usable condition.

There is no place for boredom in the life of the maintenance engineer because the large number of activities and the magnitude of the work will keep his job from ever becoming routine.

Cleaning trash and debris from the highways is quite a chore. From January 1 to June 30, this year, we picked up 3,395 loads at a cost of about \$41 thousand. There is no telling what will be found that has been thrown from car windows. One of the boys working during the summer months told me that he found \$6 one day; and another one found a watch that was still running.

I hope that some of you will consider the maintenance field and return to the Department to help us with this job.

...In Roadway Design

by Glenn Trammel
Senior Designer

To those of you who are students now employed in Roadway Design Division as well as those who might be field men or employed by other Divisions and, perhaps, interested in the type of work that we do, I would like to offer a few ideas or suggestions for your consideration.

First of all, to those who are in the process of acquiring your education, the Highway Department wants you to do just that. Get your education first, and then we would like to interest you in a career with the Highway Department. Of course my primary interest and purpose here is to bring to your attention the opportunity and challenge that is before us in the Roadway Design Division.

We can all be proud of the work that is being done at present. There is a marked improvement in the condition of the Highway Department which is reflected in the amount of work being done on our road system throughout the State. With

the passage of the Highway Bill and the funds that it provides, we are entering a new era of highway construction. This will mean an ever-increasing workload on the Road Design Division because there must be plans prepared for prospective bidders before a contract can be awarded and construction can begin.

With the permanent forces that we now have, we cannot begin to cope with the additional workload. This means that the Highway Commission will probably, at first, have to look to outside or out-of-State engineering firms for assistance in the preparation of needed plans. This is where you people fit into the picture. Through the training you are now getting and upon the completion of your college education, you will be ready and able to step into position of "Designer" with Roadway Design.

Just what is meant by "Designer?" What are some of the qualifications which are needed, and what type of work can you expect to perform should you choose such employment?

1. A "Designer" is one who formulates designs, outlines, plans, or drawings, for a particular project.
2. Some of the qualifications needed in this type of work are: you should have a working knowledge of field survey work (especially the use of transit and level); be familiar with the proper recording and translation of field survey notes; have a knowledge of the basic sciences especially math and trigonometry; be neat in lettering with pencil or pen...accuracy is important in every endeavor; you should exercise initiative, integrity, and courtesy in

your dealings with fellow-workers and departments. I might add that patience is a very good attribute.

3. The type of work you will be doing is about the most diversified, I think, of any Division in the Highway Department. The plotting of survey notes...that is, preparation of plan and profile sheets, X-section, right-of-way sketches, title sheets, and so forth, are the beginning of a set of roadway plans. Then comes the laying of grades, computation of earth-work quantities involved in cuts and fills, determining the size and type of structure for a particular drainage area and computations of quantities thereof, the type, amount, and quantities for pavement or surfacing (here accuracy is very important and the challenge is to get the best design as economically as possible). The computation of vertical and horizontal sight distances to meet design standards for interstate, primary, and secondary routes, determining the amount of right-of-way required for construction, and an engineer's estimate of all quantities involved to construct the project, are some of the more important steps involved in preparing roadway plans.

The new Highway Bill provides for the reconstruction of our Interstate System. Roadway Design Division determines the grades, turning radii for traffic movement, and provides the geometrics for grade separations, interchanges, and intersections with the Bridge Design Division designing the structure. This is where your trigonometry will come in handy as well as in other work mentioned. Careful consideration must be given to safety features, so that the over-all layout is

such as to eliminate confusion and congestion, and that all traffic can make the proper movement without delay.

There will be an increasing amount of this type of work. In fact, on the Little Rock to Benton Highway, two interchanges are now under contract and several more are planned. We are just beginning construction of this type in Arkansas and, within the next 10 years, you will see quite a change in our highways throughout the State.

These are some of the things you will be doing as an employee in the Roadway Design Division. You will also be working closely with all other Divisions of the Department, but especially with the Surveys Division, Right-of-Way Division, Bridge Design Division, Construction Division, and the Office of the Chief Engineer. This, I think, is quite an opportunity for diversified experience and employment.

There are numerous advantages with the Highway Department, and especially in the Roadway Design Division, that are not easily found elsewhere...good working conditions, among which are air-conditioned buildings, ample lights for our type of work, regular hours, good parking facilities, observance of legal holidays, and vacation and sick leave. The pay is just; and then, too, we work directly under Mr. George Fry, one of the best men to be found.

I think that Roadway Design is quite a challenge for a young man studying engineering who desires to keep his talents at home and put them to work for the betterment of mankind, as well as the best State in the Union.

..In Materials and Tests

by Joseph S. Irwin
M & T Chemist

Each one of us is, in some way, a part of our Highway System. It takes all the various Divisions for the operations of an efficient, first-class system. I feel that there is a great challenge placed on the Materials and Tests Division. What is this challenge, and how does Materials and Tests meet it?

First of all, in any new construction, the specifications call for material that is adequate so that high standards set down in the plans can be maintained. In other words, a good highway is certainly no better than the materials which go into its construction. This job of selecting materials, or seeing that the materials used (steel, timber, asphalt, and paint) fall into the specifications, is the job of the Materials and Tests Division. As a general rule, on-the-job inspection is maintained to assure that this condition does exist and that the contractor fulfills his part of the contract as he said he would. Just as in baseball, the umpire is there to see that the game is played according to the rules....and the same can be said about the materials inspector. Also, in the maintenance of our highways, we make inspections and tests to see that a road is kept in first-class condition.

We try to train a man and equip him with the tools necessary to perform the inspection work. The actual training itself takes a relatively short period

of time in order to capably perform the mechanical tests or inspection. The real value comes in the person's ability to interpret the test so that you have a clear picture of just what is happening and not just preparing a report to be sent to the office. The ability to interpret and make changes, if necessary, is essential in order to maintain a high quality of work.

You know as Americans, we are always figuring out a machine that will do our work to save us time. It is possible that if a man does a job long enough, he will figure out a way to a short cut. But if he has the theory behind some of the various testing procedures, he knows how it must be done. I might add, that our universities teach theory which can be applied in the Materials and Tests Division.

I have been with Materials and Tests about two and one-half years and as I see it, there is a great need for young qualified engineers. With the new highway program beginning, Arkansas will receive a great deal of money to be used. This, in turn, will bring added work and responsibility to the Materials and Tests. This is an excellent opportunity to get in on the ground floor of this great building program.

I would recommend the Materials and Tests Division to a man who is willing to accept the responsibility and who, as a resident of Arkansas and representative of the people, is willing to serve them in return for the satisfaction of knowing that he has had a part in building a highway system that is bringing better highways to our State.

LIVESTOCK SHOW EXHIBIT

For the third consecutive year, the Highway Department maintained an exhibit of educational and informative value at the Annual Arkansas Livestock Show in Little Rock the first week of October. A tally revealed that 29,252 people visited the exhibit. The count was under 3,000 for the first 2 days, after which people began to learn of the Highway exhibit and their interest was evidenced by the daily increase in the number of visitors the last 4 days of the Livestock Show...with 4,066 on Wednesday; 8,025 on Thursday; 6,168 on Friday; and 8,308 on Saturday.

One of the most popular features of the exhibit was the photographs of the planned expressway through Little Rock and the third bridge. The cross-sections were not shown this year, probably to avoid monotony, although they proved to be a popular part of our exhibits in the past, particularly with the men.

Our new movie, "Arkansas Highways--Route to Adventure," was run continuously to a full house. Numerous requests were made for a larger seating capacity next year because, at each showing of the film, some people were obliged to either wait from 15 to 30 minutes for a seat, leave and return for another showing, or miss the film entirely, as the limited seating space in the theater would not accommodate the number of people wishing to see the film. After the premiere showing of each new movie at the Livestock Show exhibit, there is a constant demand for its use at civic organization, school, and community meetings. Several copies of the movie are made for this purpose.

This and Training for First Aid Instructors

A First Aid Instructor's course will be held in the Commission Hearing Room at Little Rock beginning Monday, October 15, and continuing daily on a full-day basis through Friday, October 19. Preparations have been made for the attendance of 13 registrants, 1 employee from each of the 10 Maintenance Divisions and 3 from the Central Offices at Little Rock. After completing the course and passing their examinations, qualifying them as First Aid Instructors, these people will return to their respective Divisions and teach first aid classes at home base.

Oops! Correction Please...

Our apologies to C. Don Hayes, Director of Equipment and Procurement, for the by-line error on page 13 in the July-August issue of "Arkansas Highways" telling of the new Equipment Training School at Jacksonville. Mr. Hayes dictated the column to his secretary, Mary M. Hill, for use in our magazine and we erroneously gave by-line credit to Mrs. Hill. We have always received the fullest cooperation from Mr. Hayes in our endeavor to procure Highway information for use in the magazine; and we take this opportunity to express our deep appreciation of his most welcome and unfaltering assistance for the past 3 years. We know he is a busy man, yet he is "never too busy" to expend extra effort to help us out in one of the most difficult problems of producing the magazine...getting information on Highway work, training schools or programs, and employee group meetings.

That Need of a Crystal Ball?

Is it possible to anticipate the solid structure of a parked truck just over the hill in the traveling lane of a public highway? Right-of-Way Agent Norman McLeod would certainly be justified in wanting the answer to that question.

Headed toward his home in DeQueen on September 14, Norman found out the hard way how it feels to get a pretty thorough scalping job plus too many broken bones when he plowed into the back end of a parked truck "just over the hill" 8 miles east of Glenwood. Result: 100 stitches on his head, a broken kneecap, a broken left wrist, right arm broken in 2 places, and 17 days in the Ouachita General Hospital at Hot Springs. The doctors all praised Norman for being such a fine patient and perhaps one of the reasons for his philosophical attitude is the fact that he has handled the responsibilities of a job which requires constant traveling for a long time and has been exposed so often to the inconsiderations of those highway users who jeopardize the lives of their fellow men with carelessness. Best wishes and good healing. "Cleody," we miss you.

Making an Active Part...

Director Eldridge was the principal speaker at the Highway 82 Association meeting at El Dorado, September 10; the Trumann Lions Club, September 12; Conway Chamber of Commerce meeting, September 15; Jonesboro Kiwanis Club, September 21; the Society of Military Engineers at the Lafayette Hotel in Little Rock, October 3; and the Camden Lions Club, October 10. There's one thing for sure, whenever our

Director speaks before a group of people you can know without question that the subject of his talk will be "Highways," and his ever-increasing popularity as a speaker proves both the man and the subject to be of the super-variety....The Road Opening from Bee Branch to Morgantown was attended by Commission Chairman Cecil S. Lynch, Mr. Eldridge, A. G. Rives, and Gerald Sisk on September 12....Mr. Rives represented the Department at the Fire Prevention Conference September 25....and Miss Willie A. Lawson, Mr. Eldridge, and Mr. Rives participated at a Community Meeting at Success on October 5.

Our Sympathies...

With compassion and understanding, we offer our deep and heartfelt sympathies to John Strom, Assistant Maintenance Engineer, in the loss of his beloved wife, Mrs. Mabel Nuckells Strom, who passed away September 30 as a result of a heart attack. Mrs. Strom, an active church worker, became ill during services at the Pulaski Heights Christian Church where she had served as organist for a number of years. In addition to her husband, she is survived by two daughters, one son, and six grandchildren, all of whom reside in California.

Mr. Strom has served the Department continuously in an engineering capacity since April 1934, and is a recognized authority on heavy bridge engineering and maintenance. His friends are unnumbered...may their thoughts and prayers help ease the burden of sorrow in his heart and comfort his mind in his distress.

Party Line Parade

HEADQUARTERS

PERSONNEL DIVISION

Hazel Norman - Reporter

Most of our news this time is about vacations so here goes. Jackie Wallace flew to South Carolina and New York, where she took in some night spots, did some shopping, and had a good time.

* * * *

Eleanor and Bill Huie made a trip down to the Gulfcoast cities Biloxi, and Gulfport. A delightful trip but the weather was a little chilly, she reported.

* * * *

We have a new girl in our office who seems to fit right in with the rest of the gang. She is Myrna Key and she hails from Tennessee. Welcome, Myrna.

* * * *

Sarah and Walter Neel are mighty proud of their new, beautiful, ivory and turquoise Chevrolet and who can blame them? Congratulations to the Neels. They spent a few days in Memphis visiting their son and his family on their vacation.

* * * *

Martha, Harry, and Jimbo Adams spent their vacation in St. Louis visiting relatives. Ball addicts Harry and Jim got to see the Cards play the Braves one night which was a treat.

* * * *

Your reporter, Nancy, and Sonny drove to Morehead, Kentucky, in August, to visit my sis, Delia Mann and son, Spencer. We had a wonderful time but a long trip.

IBM SECTION

Nadene Trantham - Reporter

Congratulations to Arthur Johnson on his contribution to the new Machine Accountants Chapter in Little Rock. Of course the members were pleased and elected him their first president. Good Luck, Art, on your new undertaking and may your Chapter become one of the finest

* * * *

We extend a "Welcome Home" to James Willard who came back to work in our tab room, and we're also glad to have Irma Jean Rena of Memphis, a new employee, who joined us October 1. We hope you will both be very happy on your new jobs.

* * * *

If you're wondering...the pretty new gold Chevrolet belongs to our own Sybil Henderson. Congratulations, Sybil.

* * * *

It seems that week-end trips have been the thing in our office recently: Gladys and Fred Plunket went to Fayetteville to see their daughter, Sue, who is in the University and also attended a tea; Rita and Roy Hardcastle motored to Hot Springs with friends who were visiting from Illinois; Erma and Robert Jetton spent the week end cruising White River in a houseboat with friends; and your reporter and husband, Fred, spent the week end at the farm in Hope and visited my father, W. L. French, who is in the hospital. (We all send our best wishes to Mr. French.)

Party Line Parade

STATISTICS AND ANALYSIS

John Hume & Bill Headrick - Reporters

We are happy to have Leroy Beckett back on the job with us again after suffering from a broken foot received while pouring a concrete driveway at his home. Leroy came back to work with a cast on his foot but complications arose and he had to go back to the hospital and then remain at home for several more days. We are glad the worst is over, Leroy, and hope your foot will continue to heal rapidly.

* * * *

Hank Mercer recently returned from a 2-week military leave with the 118th Reconnaissance Technical Squadron of the National Guards at Gulfport, Mississippi. Hank brought back enough chiggers to supply an army regiment. We are glad to have you back on the job with us, Hank.

* * * *

We are all happy to have Helen McNutt back with us after a 3 month's absence. Helen had major surgery on her hip which required a long convalescence but is feeling fine now. She will, however, continue to use her crutches for a few more months but we all think she is making splendid progress. Welcome back, Helen, we have all missed you.

* * * *

We are a little late in congratulating June and Buddy Lewter who have moved into their lovely new home in Lakewood at 5212 Lockridge Road. We are happy for them and know they are enjoying it very much.

The S & A employees enjoyed a picnic at Junior Deputy Sheriff's playground a few weeks ago. More than 70 people attended and everyone had a wonderful time. A delicious supper of spaghetti and meatballs, along with salad and cookies were served. To add to the occasion "Grandpappy" Baird and Cecil Rider were awarded their Service Pins and Certificates of Merit. Mr. Baird has been with the Department for 20 years and Mr. Rider for 5 years. We offer our Hearty Congratulations to you both.

* * * *

Mary Ann Bell and her little sons spent her 10-day vacation recently in Memphis visiting with her mother and brother and also some friends. She reported to have had an enjoyable visit.

* * * *

Bea Davis spent her vacation and also a leave of absence in Corsicana, Texas, caring for her sister who has been ill. We missed you, Bea, and we are glad to have you back with us.

* * * *

Bill Headrick and his family enjoyed a very pleasant week end recently visiting in Ferndale.

* * * *

We are sorry to report Ann Signoracci has been on the sick list with a cold. Glad to have you back with us, Ann.

* * * *

Mrs. Iva Hemphill was happy to have as her guests recently her son, Merle, and his wife from Arlington, Virginia. Enroute they left their daughter at the University of South Carolina in Columbia.

Party Line Parade

EQUIPMENT AND PROCUREMENT

Mary M. Hill - Reporter

G. G. Carter, who has been working in Batesville for the past 3 years, has been transferred back to us at Central Shops as Foreman in the Heavy Equipment Shop. Welcome back, Mr. Carter. We also extend a hearty welcome to another former employee, Jimmie T. Guffey, who joined us September 17. We are glad to have you both back with us and hope you will be happy on your new jobs.

* * * *

Quite a few interesting vacation trips were taken this summer by some of our employees, and from the places they visited they were going in all directions. Listed below are some of the people and places involved: James M. Baker went up to Greenport, Long Island, New York; W. P. Vanderburg drove out to the mile high city of Denver, Colorado, with his family; Joe Stinson motored out west to Ogden, Utah; Kay Bonnell vacationed at Gatlinburg, Tennessee, in the beautiful Smoky Mountains; Bonnie Collins had a wonderful time visiting the "Windy City," Chicago, Illinois; James C. Hammond motored through our own picturesque Ozarks, in northwest Arkansas; Ray Casey visited relatives and friends in Batesville. We don't know if he did any fishing in White River or not; and M. W. Skelton enjoyed just resting at home as did Carl Hillis, whose son has just returned from the Service. All reported they had a grand time and agree that vacations are wonderful.

C. Don Hayes enjoyed the annual Convention of the Southeastern Association of Highway Officials held in Roanoke, Virginia, September 4 through 9.

* * * *

We extend our congratulations to James S. Alexander who is the proud owner of a pretty new 1956 Plymouth. We are all happy for you, James.

* * * *

Sally Schadt, switchboard operator in the Equipment Office, was delighted to have her mother and father, Mr. and Mrs. M. L. Blocker and her two sisters from Allentown, Pennsylvania, as visitors over the Labor Day week end.

Reporters

DEADLINE IS

NOVEMBER

15

Party Line Parade for the....
Christmas issue will not.....
include items submitted later
than the deadline November 15

GET YOUR NEWS IN EARLY

Party Line Parade

DISTRICT 2

Division 2 Dorothy Tucker Pine Bluff

Congratulations to the following men who received their Service Award Pins: Brewster M. Shalmy, 20 years service; Robert O. Jarboe, 15 years service; Charles R. Gaddy, 10 years service; and J. L. Goins, Jr., 5 years service. We know they are very proud to wear these pins and we are certainly proud of them.

* * * *

James Pierce, our bookkeeper, celebrated his birthday September 7. We add our hearty congratulations, James, with the hope that you have many, many more.

* * * *

Charles R. Gaddy went to Broken Bow, Oklahoma, to attend the annual Labor Day Square Dance Camp. He said the food was wonderful and he gained 6 pounds. He returned foot-sore, and swore he never wanted to hear "do-si-do" again! The event lasted from 2 o'clock Friday afternoon until 2 o'clock Monday afternoon. We are sure he had a wonderful time despite the sore feet and sleepy eyes. Mr. Gaddy plans to take his vacation soon and tells us he is going to stay home and rest.

* * * *

We congratulate the men from our Division on the work they have done on Highway 65 North. The work is fine and the intersections are beautiful. We feel that everyone should be proud to have roads like this, not only for their beauty but also for the pleasure received when you drive over them and see a job well done. Good work, fellows!!!

We send our very best wishes to Mr. and Mrs. Hurshel E. Harwell, Jr., who were married recently. Congratulations, and may you both have many, many happy years together.

* * * *

Mr. and Mrs. J. L. Goins took a 2-week vacation and went to Denver, Colorado. He wanted to get in some of that mountain stream fishing but unfortunately, he didn't get to do a lot of fishing but had fun anyway. His wife turned out to be quite the type for the mountains and they visited her brother who has a cabin at the foot of one of the highest mountains. J. L. said he enjoyed it so much he wished they could continue to enjoy that wonderful mountain life. We are glad to have you back on the job, J. L., and that you both had a grand time.

* * * *

We are happy to report that Homer B. Woolery and G. L. Bordeaux are recovering from their recent illness. We hope you both are able to be back with us soon.

* * * *

Your reporter took advantage of the long Labor Day week end and visited with relatives in Mississippi and had a wonderful time.

* * * *

Congratulations to Van Dyke Chavis, Jr., who completed 4 years of college at Monticello the end of August. "Sonny" is the son of our Selma Chavis. He will be employed at the Commercial Credit Corporation in Pine Bluff. Good luck, "Sonny." We know your parents are proud of you, and justly so.

Party Line Parade

We are sorry to lose H. G. Reedy and Buster Hollis who are retiring. They have done an outstanding job in the many years they have been with the Department and we will certainly miss them. Our best wishes go with you both and may you find contentment and happiness in your new life of retirement. Stop by to see us when you can, we will always be glad to see you.

* * * *

We are happy to report Garland Vick, foreman, is feeling fine after his recent stay in the hospital. He was on the sick list for a week. Glad to have you up and around again, Garland.

DISTRICT 3

Division 3 Olive Jackson Hope

The month of August meant military leaves for some of the employees in our Division. Houston Kitchens, Franklin S. Page, Cecil McCorkle, Donald Skinner, Elmer Clark, and Floyd L. Pharris, Jr., spent their 2 weeks in Camp Polk, Louisiana, with the National Guards. And Sam J. Huckabee and Kenneth Stovall also spent their military leave with the National Guards stationed at the Air Base in Jacksonville.

* * * *

Schley and Sybil Carter with their two daughters, Lydia Lemser and Carolyn, reported to have had a marvelous vacation. They went to New Orleans, Louisiana, Mobile, Alabama, Pensacola, Florida, Jackson and Greenville, Mississippi. While in Pensacola they visited Schley's brother and also took a swim in the Gulf.

We are glad to report that Ted Maryman is recuperating from a recent operation. We extend our best wishes to you, Ted, for a speedy recovery with the hope you will be back with us soon.

* * * *

Harvey McCorkle, who has been with the Department for 12 years, retired on September 1. "Uncle Harve" will live with his son in Carmi, Illinois. Best wishes, "Uncle Harve" and may you have a long and happy retirement.

* * * *

We extend our Hearty Congratulations to June and Roy Chance AND Frances and Albert Hodges who became the proud parents of baby daughters recently. Doris Ann Chance was born August 17 and Catherine Ann Hodges made her appearance on September 6. We wish for both little girls long, happy, and prosperous lives.

* * * *

We are sorry to lose Loyce Burns resigned recently to accept other employment. Good luck to you, Loyce.

* * * *

Lester and Hester Purtle have returned from a wonderful visit with their son Philadelphia, Pennsylvania, and their daughter of Cleveland, Ohio. While in Philadelphia, Lester had the privilege of going deep sea fishing and caught a "Whale" of a lot of fish.

* * * *

We are very sorry to report that W. E. McElhannon has been ill most of the summer with arthritis. We hope you will be feeling real good again soon. Mr. McElhannon, we miss you.

Party Line Parade

DISTRICT 3

Division 7 Bobbie Ann Cowen Camden

W. E. Hicks, District Engineer, went to Roanoke, Virginia, to attend the annual Convention of the Southeastern Association of State Highway Officials which was held September 4 through 9. The Convention was informative and he also reported to have enjoyed the trip very much.

* * * *

We miss Sheila Williams Newton who resigned August 31 to accompany her husband, Jimmy, to Stillwater, Oklahoma. Jimmy is planning to continue his studies at Oklahoma A & M and also do some teaching. Our very best wishes go with Sheila and Jimmy.

* * * *

Edward Jeter, son of Mr. and Mrs. W. T. Jeter, Sr., District Maintenance Supervisor, entered the University of Arkansas September 7. Edward was awarded a scholarship at the Fort Smith High School for his excellent grades there. Congratulations, Edward, and may you have continued success in the future. We know your parents are very proud of you and justly so.

* * * *

The above by-line is owned by your new reporter and I'm happy to join the rank of reporters. I came to work as District stenographer on September 1 and certainly hope I can be with you for some time. (We are happy to have you as reporter, Bobbie Ann, and we are sure you will make a good one.)

We were very happy to have Linda Nichols work with us in the District office for 2 weeks this summer. Linda filled in for the personnel in our office while they were taking their vacations. Linda moved with her husband, Brooks, to Fayetteville where he is a senior at the University this year. We wish them both the best of luck.

ACCIDENT REPORT continued from page 8

Division 6 - Total 4

- 9/17/56, sliver of hammer injured arm.
- 9/19/56, automobile accident, no injury.
- 9/24/56, hand slipped cutting finger on blade of knife.
- 9/29/56, timber fell and mashed finger.

Division 7 - Total 1

- 9/21/56, foot slipped off machine and fractured left foot.

Division 8 - Total 4

- 9/5/56, removing wheel from patrol and broke toe on left foot.
- 9/13/56, piece of limb injured right eye.
- 9/14/56, metal flew under goggles and injured right eye.
- 9/18/56, unloading timber, mashed fingers.

Division 9 - Total 3

- 9/6/56, tail gate hit right toe.
- 9/11/56, mower overturned, contusion of hip and sacroiliac strain.
- 9/24/56, stick flew from mower striking employee in left eye.

Division 10 - Total 3

- 9/4/56, pay loader ran over foot and sprained left ankle.
- 9/7/56, automobile accident, no injury.
- 9/21/56, cut thumb with axe.

AHD CROSSWORD PUZZLE

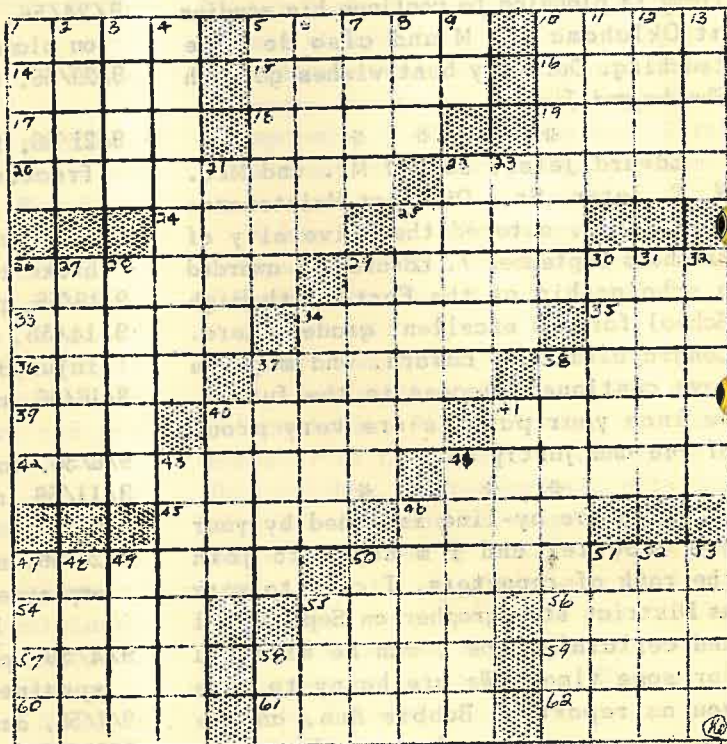
ACROSS

1. Ascend
5. Curtain fabric
10. A religion
14. Paradise
15. Worn away
16. To verify
17. Exclamation
18. All for one
19. Slam
20. Deferred
22. Badly
24. Balmy
25. Soft, wet land
26. Equine home
29. Arched drains
33. To droop
34. Pen
35. Female lobster
36. A stake
37. Rows
38. Challenge
39. Jumbled type
40. Ultra bad
41. To feel
42. Yells
44. Profession
45. Competes
46. These (Scot)
47. A hut
50. Lavish
54. A stove chamber
55. An aspersion
56. A flatfish
57. To encounter
58. Scratch
59. Consumes
60. Leases
61. Goes astray
62. An aperture

DOWN

1. To foster
2. Useless
3. Lay the dust
4. Together
5. To adjust
6. A tenet
7. Highways
8. Distinctive practice
9. Myself
10. Wild
11. Girl's name
12. Small compartment
13. A three spot

21. Reduces to zero
22. A great many
23. Lower edge
25. Riding whip
26. Discourtesies
27. A pep-up
28. Change
29. Salad green
30. A European river
31. Concise
32. Scoff
34. Telegraphs
37. Rows
38. Poison plants
40. To lament
41. Uttered
43. Happenings
44. Tasks
46. Confidence
47. Abode
48. Above
49. Swerve
50. Design
51. For attainment
52. A viola
53. An apprehension
55. Experience
58. Transpose (print)



TOMORROW'S UNKNOWN EXECUTIVES

Tomorrow's executives are within the ranks of business today, though they themselves may have no awareness of their individual identities. Each "success story" is different because each successful person is different.

There is no way a young man can be chosen at random from the ranks, handed a complete list of characteristics...graded according to their importance...and told: "Now these are the ingredients of success. Develop these qualities, and in just these quantities, and you can't miss."

But there is a basic principle in our "free enterprise system" which, if followed by a young man, will naturally help him when it comes to a choice of tomorrow's executives. That identifiable principle is that what he does over and above what is expected from him counts heavily toward his advancement. It is that little bit extra which sets him apart from the group.

A man who has made the effort to increase his personal knowledge of things even a little outside of his immediate job, has broadened his personal abilities in the process and this has helped to prepare him for that better job as it opens up.

--Texas & Pacific Topics

