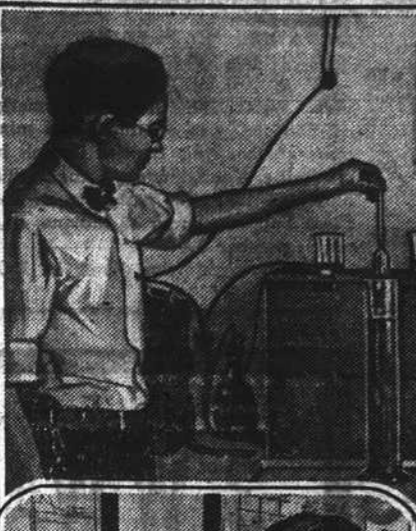


Rural Highways to Benefit From Public Roads Bureau Research

The long-held aim of "getting the farmer out of the mud" promise to be brought materially closer to realization through the application of a very considerable part of the \$400,000,000 federal road fund to the secondary highway system. The United States Bureau of Public Roads will have heavy responsibilities in the expenditure of the fund, and it is fortunate that research conducted by the Bureau provides the basis for the construction and improvement of low-cost roads that will both get and keep the farmer out of the mud without imposing an unbearable tax burden for maintenance.

The Bureau's research, conducted in its test laboratory at Arlington, Virginia, across the Potomac from Washington, has covered characteristics of the ground beneath the surface which are important to the design, construction and maintenance of highways. It has also covered the problems of highway surfaces with a view to the use of chemical and physical admixtures to provide low-cost roads with surfaces that will stand up under traffic and can be maintained at low cost.



Taking an hydrometer reading of a soil sample dispersed in distilled water. One of the steps necessary in determining the proportions of sand, silt, clay and other substances.

Low-Cost Highway Surfaces

The surface condition of clay, sand-clay and gravel roads depends largely upon the degree of cohesion possessed by the clay or other material that acts as the binder or "glue." This in turn largely depends upon the presence of sufficient moisture, for it is the moisture film between the particles and not the particles themselves that provide the "glue." The value of chemical admixtures in maintaining cohesion has been shown by the use of calcium chloride, a white, flaky substance which slows down evaporation and prevents the drying out of the moisture without which the surface tends to disintegrate.

Spread upon the surface, the first rainfall carries it down to the surface soil. With the re-appearance of the sun, evaporation of the surface moisture begins but is replaced by the rising of the calcium chloride solution. Evaporation continues only up to the point at which, due to the calcium chloride, the solution will no longer evaporate. At the next rainfall the same process takes place with the result that cohesion is steadily maintained.



The compression test, during which soil samples are subjected to pressures equivalent to those imposed by a heavily loaded truck.

Sub-Surface Soils Study

The foundation of a road is as important as the foundation of a building. In the case of roads of all kinds this foundation is provided by the sub-surface soils. The Bureau of Public Roads' program of sub-surface research has included all of those soil constituents which are of importance in determining the reactions of widely different soils under varying conditions of load, moisture and temperature. This has involved tests

of soil samples from all parts of the United States. One of the fundamental tests is an analysis to discover the proportions of sand, silt, clay, and other substances which the soil contains. This involves a lengthy laboratory procedure, including hydrometer readings of a soil sample dispersed in distilled water. The readings are taken over a period of 24 hours. At the conclusion of the analysis it is possible to determine, by employing complex mathematical formulae, not only the proportions of all the different soil substances, but the actual size of their particles.

The "Liquid Limit" Test

The "liquid limit" test determines the maximum amount of moisture which the soil can hold

without losing stability to a harmful degree. This liquid limit varies greatly with different soils and is of great importance in determining the extent to which capillary and other moisture will lessen their stability. While all soils require a certain amount of moisture for cohesion, too much moisture will have the same effect upon them as will too much moisture upon a handful of damp sand.

A compression test, in which a sample of the soil is subjected to loads comparable to those of a heavily loaded truck would impose, determines the resistance to pressure from above; the resistance to lateral flow, or spreading out, under such pressure; and the expansion or tendency to take up water after being compressed.

The knowledge which these and other tests make available, enables the highway engineer to know in advance how the soils which he must work with will react under varying conditions of moisture, pressure and climatic changes. If the soils are deficient in certain qualities, they indicate what materials should be added, and in what proportions. They tend to give the highway engineer the same degree of exact knowledge about his soils, as the structural engineer possesses concerning steel and stone.

MONCURE NEWS

Prof. H. G. Self, who has been principal of Moncure school for eleven years and under his principalship Moncure school has made wonderful progress, will move August 28th, to Burlington, where he will be principal of E. M. Holt Public school on the Alameda Battle road, Burlington, with twenty teachers in the school. Prof. and Mrs. Self will leave many friends in town and surrounding communities, who wish them much success in their new work. We will miss them here, for they were active in every phase of work for good of the town, school and community. They will live on Church street, Burlington.

Prof. R. P. Umstead, of Chapel Hill, will succeed Prof. Self as principal of Moncure school. He is a graduate of the University and comes to us highly recommended, and efficient in school work.

Prof. H. A. Melvin, of Chapel Hill, will succeed Mr. W. E. Gladstone as teacher of History and Science.

Miss Olivia Goodie was re-elected as teacher of English and French and Miss Anna Mae Caddell was re-elected as teacher of the Home Economics department.

The following grade teachers were elected for the ensuing year:

Miss Cecil Seawell, 7th grade.
Mrs. T. S. Crutchfield, 6th grade.
Miss Helen Wicker, 5th grade.
Miss Margaret Mann, 4th grade.
Miss Pearl Johnson, 3rd grade.
Miss Sarah Kelly, 2nd grade.
Miss Kathleen Brooks, 1st grade.

Mrs. H. M. Hackney was elected teacher of the music department.

Miss Claire Harrington, of Merry Oaks, will have charge of the teacherage this year.

Mr. and Mrs. E. W. Aven, Jr., and little son, of Wagram, visited Mrs. Aven's parents, Mr. and Mrs. J. R. Rav, last week end.

Mrs. J. E. Johnson and children, of Mebane, are visiting Mr. and Mrs. A. F. Morrison this week.

Rev. and Mrs. E. C. Draham and children, of Weldon, are visiting Mr. and Mrs. R. P. Womble this week.

Rev. E. C. Durham preached at Flat Spring church Monday evening. Revival services are being conducted at Flat Springs church this week.

Mrs. E. G. Sammons and sons, Joseph and Jacob, are visiting this week relatives at Wise, and Richmond, Va. Before returning home they will go to Buckroe Beach.

Mrs. Barbara Watkins and Julian L. Bryan spent last Wednesday in Raleigh.

Mr. D. A. Clark has returned from

a visit to Charlotte.

Miss May Bullard, of Raleigh, and Miss Ethel Farrell, of Pine Bluff, were week end guests of Miss Bettie Harward.

Rev. T. Y. Seymour preached a good sermon at the Baptist church here Sunday evening on, "Ye are The Light of the World."

Rev. T. Y. Seymour is conducting revival services at Gum Springs Baptist church near here this week.

Mrs. Douglass and children, of Hamlet, spent last week end with her parents, Mr. and Mrs. D. A. Clark.

The members of Moncure Epworth League held a most interesting program at the church last Sunday evening. The subject discussed was "Hymns and Poetry." The young people of the town and community are invited to attend the Epworth League meetings each Sunday evening at 7:30 o'clock.

Several from here attended the revival services at Mt. Zion last week. Rev. M. C. Elerbe, the pastor, did the preaching and each service was very impressive and helpful. Each service was well attended and much interest shown.

Mr. and Mrs. D. W. Johnson and family attended the revival services at Asbury M. E. church last week.

Mrs. T. S. Crutchfield spent last week with her parents at Bonlee.

Miss "Bill" Andrews, of Bonlee is spending this week with her sister, Mrs. T. S. Crutchfield.

Mr. and Mrs. J. F. Morrison, of Peachland, spent last week with her son, Mr. A. F. Morrison.

ADD MONCURE

Mr. and Mrs. W. C. Shields and family, of Durham, were guests of Rev. and Mrs. T. Y. Seymour last Sunday.

Miss Lois Wilkie is visiting her brother at Waterville.

Miss Pearl Hackney, who has spent the summer with her sister at Brooklyn, N. Y., returned home one day last week.

Misses Mary and Cecil Seawell, of Buckhorn, were in town one day last week.

Miss Pearl Johnson, of Pittsboro, and Miss Kathleen Brooks, of Bonlee, were in town one day this week.

Mrs. Claire Harrington, of Brickhaven, was in town Monday on business.

Messrs. R. P. Umstead and H. A. Melvin, of Chapel Hill, were in town on day last week.

GULF NEWS

(Deferred from last week.)

Mr. and Mrs. F. H. McIntyre and family, of Raleigh, motored up Sunday morning. Mesdames J. W. McIntyre and J. W. Cameron joined them and all were luncheon guests of Mr. and Mrs. Arthur Teague, at Siler City.

Mr. Ellis Murchison, of Rocky Mt. spent Tuesday night with his aunt and uncle, Rev. and Mrs. G. L. Merrell.

Mr. Henry Campbell, of Portsmouth, Va., is visiting his aunt, Mrs. Robena McRae this week.

Miss Verna O'Connell, of Jonesboro, was week end guest of Miss Annie Tyner.

Miss Minnie Murchison left Sunday to visit Miss Bonnie Babb, at Fountain Inn, S. C.

Mr. and Mrs. W. H. Hill, Mr. and Mrs. Vann Oldham and children, were guests of friends at Glendon Sunday at a chicken dinner.

Revival services begin Sunday, August 27th, at Bethany Baptist church. Children's Day exercises immediately after Sunday School. Dinner will be served on the ground and Rev. Mr. Stroup, of Rameur, will assist Pastor E. W. Byerly, and will preach Sunday afternoon. Services will be held afternoon and night during the fourth week.

Mr. and Mrs. Ed Jourdan, of Siler City, visited their aunt, Mrs. M. J. Jourdan, Sunday afternoon.

Mr. Herbert Russell, Jr., is spending the week as the guest of Mr. Clyde Jourdan, at the Jourdan Cottage at White Lake.

Mrs. Eugenia Smith, of China Grove, arrived Sunday to spend a few days with her daughter, Mrs. D. M. Tyner.

Mrs. Lucy A. Beal celebrated her 179th birthday Monday, August 21st.

Mr. and Mrs. J. C. Carson, Jr., Germantown, arrived last week to spend two weeks with Mrs. Carson's parents, Mr. and Mrs. D. E. Murchison.

REVIVAL CLOSURES AT MEMPHIS.

The revival which was held at Memphis church last week, closed Friday evening. Rev. J. E. Blalock, delivered some wonderful Bible sermons which were greatly enjoyed by those who attended. Rev. Thrift conducted the Cokesbury Training School, which we feel will be of great help to the church and Sunday school. Those who passed the examination and received credit cards were: C. M. Harward, Mrs. B. C. Yarboro, and Misses Nora and Daphne Holt. Misses Mabel Holland and Margaret Buchanan passed but were too young to receive credit cards. The members of the church appreciate the faithful services rendered by Mr. Thrift. They also appreciate Thrift, of Durham, and Mrs. W. M. Kelly, of Sanford and Mrs. J. E. Blalock, of Jonesboro, who helped with the music. We feel that the church has been revived and great and lasting good will result from the services.

STATEMENT	
UNION CENTRAL LIFE INSURANCE COMPANY	
Cincinnati, Ohio.	
Condition December 31, 1932, as Shown by Statement Filed.	
Amount of Capital paid up in cash	\$ 2,100,000.00
Amount of Ledger Assets December 31st of previous year	316,465,336.79
Premium Income, \$42,665,551.91; Miscellaneous, \$28,392,439.94; Total	71,067,991.85
Disbursements—To Policyholders, \$58,334,255.57; Miscellaneous, \$21,180,715.99; Total	79,514,971.56
Business written during year—Number of Policies	26,521; Amount
Business in force at end of year—Number of Policies	122,921,007.00
384,070; Amount	\$1,419,680,587.00
ASSETS	
Value of Real Estate (less amount of encumbrances)	\$ 37,970,964.06
Mortgage Loans on Real Estate	159,482,457.21
Loans made to Policyholders on this Company's Policies assigned as collateral	83,273,222.68
Premium notes on Policies in force (of which \$442,330.60 is for first year's premiums),	5,912,968.00
Net Value of Bonds and Stocks	5,478,372.99
Cash	3,483,419.01
Interest and Rents due and accrued	15,690,844.85
Premiums uncollected and deferred	5,491,073.53
All other assets, as detailed in statement	13,160,753.00
TOTAL,	\$329,894,075.16
Less Assets not admitted	152,973.51
Total admitted Assets	\$329,741,096.65
LIABILITIES	
Net Reserve, including Disability Provision	\$261,899,370.00
Present value of amounts not yet due on Supplementary Contracts, etc.	3,795,777.08
Policy Claims	2,086,780.17
Dividends left with Company at interest	3,859,115.43
Premiums paid in advance	1,108,826.91
Unearned Interest and Rent paid in advance	658,475.82
Commissions due to Agents	514,871.18
Estimated Amount payable for Federal, State, and other Taxes	1,002,716.37
Dividends due Policyholders	7,006,695.15
Amounts set apart for future dividends	26,563.00
All other Liabilities, as detailed in statement	32,170,051.11
Total amount of all Liabilities, except Capital	\$314,129,242.25
Capital paid up in Cash	\$ 2,500,000.00
Unassigned funds (surplus)	\$13,111,854.40
TOTAL LIABILITIES	\$329,741,096.65
Business in the State of North Carolina During 1932	
Policies on the lives of citizens of said State in force December 31st of previous year, 10,464; Amount	\$28,951,221
Policies on the lives of citizens of said State issued during the year, 452; Amount	1,981,836
Total No. Policies 10,916; Amount	\$30,933,057
Deduct ceased to be in force during the year, 1,737; Amount	6,331,649
Policies in force December 31st, 9,179; Amount	\$24,601,408
Losses and Claims unpaid December 31st of previous year, 6; Amount	7,811
Losses and Claims incurred during year, 99; Amount	242,686
Total Number 105; Amount	250,497
Losses and Claims settled during the year, in full, 96; Amount	\$228,807
Losses and Claims unpaid December 31st, 9; Amount	21,690
Premium Income—Ordinary,	\$716,588.83
President, W. Howard Cox.	Secretary, Richard S. Rust
Treasurer, H. L. Hodell	Actuary, E. E. Harcastle
Home Office: 3 W. 4th Street, Cincinnati, Ohio.	
Attorney for Service: Dan C. Boney Insurance Commissioner, Raleigh, N. C.	
State of North Carolina, Insurance Department.	
Raleigh, April 21st, 1933	
I, DAN C. BONEY, Insurance Commissioner, do hereby certify that the above is a true and correct abstract of the statement of the Union Central Life Insurance Company, of Cincinnati, Ohio, filed with this Department, showing the condition of said Company on the 31st day of December, 1932.	
Witness my hand and official seal the day and date above written.	
(Seal)	DAN C. BONEY, Insurance Commissioner.

Progressive Stores, Inc.

Sanford, Apex, Raleigh, Smithfield, Four Oaks, Dunn, Lillington, Fuquay Springs, Varina, Pittsboro, Hillsboro, Liberty, Durham, Randleman, Aberdeen, Troy, Mt. Gilead and Zebulon

"North Carolina Stores For North Carolina People"

SPECIALS FOR FRIDAY AND SATURDAY, AUGUST 25th and 26th

SUGAR: 100 LB. BAG \$4.90 | 25 LB. BAG \$1.23 | 10 LB. BAG 49c

Kraft's Salad Dressing, pint jar, 15c | Kraft's Mayonnaise, 8 oz. jar . 15c

Salt, 5c package, 3 for 10c | Post Toasties, 2 packages 15c

Fat Back, WHITE THICK lb. 6½c | Par Tea 1-4 lb. pkg. 10c | 1-2 lb. pkg. 19c

Eagle Brand Asparagus, square can 19c | PILLSBURY CAKE FLOUR, package 29c

RINSO 2 pkgs. 15c | LIFEBOUY For skin health. Lifebuoy Soap 3 cakes 19c

CARNATION MILK 4 tall cans . 25c | 8 small cans . 25c

Shortening White Cloud 50 lb. Tin \$3.75

ROYAL ASTER SHORTENING, 8 pound Carton 65c

CERTO, Bottle 29c | Maxwell House Coffee, lb. . . . 29c

Sweet Potatoes, No. 2 can 5c

PEARS, Value Brand, no 2 can 10c

CHEESE, full cream, lb. 17c

HONEY, Whiskey Creek Brand, 8 oz. jar 10c

OXYDOL'S Oxydol, pkg. 5c

CONTEST P&G Soap, 5 cakes 20c

488 CASH PRIZES FULL DETAILS HERE Lava Soap, cake 5c

FRESH FRUITS & VEGETABLES

LEMONS, large, doz. 21c

LETTUCE, large head 10c

Cabbage 4 lbs 9c

WHITE POTATOES

No. 1's, 10 lbs. . 29c

No. 2's, 10 lbs. . 19c