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NEWS LETTER

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PROGRAM FOR TAX STUDY CLUBS

VIII. CARE OF PUBLIC PROPERTY

A. Outline

1. Buildings:
   - Number and location.
   - Cost.
   - Present value.
   - State of repair.
   - Attractiveness.
   - Insurance carried.
   - Cost of upkeep.
   - Grand jury recommendations.
2. Equipment:
   - Court house fixtures and furnishings.
   - County home fixtures and furnishings.
   - Jail fixtures and furnishings.
   - Highway machinery.
   - School equipment.
   - School libraries.
   - How well cared for?
   - Annual inventory.
3. Supplies:
   - Where kept?
   - Who responsible?
   - Are requisitions required?
   - Is there an annual inventory?
4. Records:
   - Preservation of valuable records and documents.
   - Protection from fire.
   - Accessibility.
   - How catalogued and indexed.
5. Individual Responsibility:
   - Highways:
     - Are they safe?
     - Are they free from billboards and litter?
     - Are there roadside plantings?
     - Do you fix, report, or ignore a fault?
   - School Buildings:
     - Are they well-lighted, well-ventilated, and fire-proof?
     - Are there adequate playgrounds?
     - Are the grounds attractive?
     - Are buildings and grounds cared for during the summer?
   - Public property in general:
     - Is it respected as private property is?
     - Is there a lively sense of personal responsibility?
     - When there is waste or misuse is it condemned, condoned, or corrected?

B. Explanation

Poor Richard's adage that a penny saved is a penny earned does not seem to be much respected in modern times, at least when public property is concerned. Every county has large and expensive properties the life-time of which depends on the care which they receive.

The accompanying outline hardly needs explanation. It merely suggests a few inquiries that might be made relative to public property and how it is appraised, inventoried, and accounted for. The county is a political corporation and each citizen is a stockholder, and has a responsibility to assume. In the grand jury the citizen has an agency through which he can report any neglect, abuse, or misappropriation of public property of which he has knowledge. This body will investigate and, if necessary, present the matter before the court.

Many of the counties have recently built handsome new courthouses of which the people may justly be proud. Yet it is not uncommon during court week to see the floors scratched and stained, the walls marked up, the furniture disfigured.

During the last few years hundreds of splendid new school buildings have been erected, fitting testimonials to the educational awakening of the state. Yet, oftentimes, during the vacation period, the weeds grow waist high, windows are smashed, doors broken open, and books and fixtures strewn about and generally abused. Sometimes leaks are unnoticed until much damage has been done. Oftentimes the floors of a handsome building are ruined in a year because of the mud tracked in. A slight expenditure in walks and grass plots would save the floors tremendously, to say nothing of improved appearance and cleanliness.

The state and the counties are spending millions of dollars for improved highways. Apparently some people feel that as soon as a road becomes a public charge their responsibility ends. They will not even kick a stone out of the road any more. Sometimes a small hole in the road could be repaired in ten minutes, but if neglected for several days it gets larger and involves a considerable expense to repair. There are three types of citizens. One throws a few shovel-fulls of dirt in the hole and says nothing to anyone about it. The second type calls up the road supervisor and tells him about the hole. The third type drives around the hole day after day, criticises the road force, and complains about high taxes.

Many illustrations might be given of waste in the care and use of public property. Valuable road machinery may be left unsheltered from the weather; supplies may be stolen and never missed; equipment of all sorts may rapidly depreciate for lack of attention.

There can be no great relief in taxation until, on the one hand, there is some system of centralized control over public property, and on the other hand, a greater sense of personal responsibility on the part of the citizens in the care and use of this property.

C. Questions

What is the total value of the county's fixed assets?

Is there an inventory and appraisal each year?

Has the county a comfortable jail with desirable quarters for the jailer's family?

Is there a comfortable county home?

How many consolidated schools? Are there teachers' homes in connection with them? Ought there to be?

What is the life-time of a school truck? Are they ever used for purposes other than the transportation of pupils to school?

How many miles of improved county road? How does cost of maintenance compare with that in other counties?

How many modern bridges? How many new ones needed?

Are all buildings adequately insured?

Who is responsible for the care of road supplies and equipment?

Who is responsible for school supplies and equipment?

Are county records properly protected?

Are billboards along the highways necessary or desirable?

Is anything being done to encourage the beautification of highways and school grounds?

D. Source of Information

Examination of county buildings.

Interviews with county officers.

Observation of buildings, grounds, etc., in other counties.—Paul W. Wager.

BUILDING AND LOAN PLAN

No investigation of progress and prosperity in North Carolina could fail to discover the important part played by building and loan. It has been a tremendous factor not only in building up the state in a material way but also in creating more homes and better homes, in assisting in the education of its people, in developing better citizens and in making North Carolina a better place in which to live.

How Building and Loan Works

A true Building and Loan association is a strictly mutual co-operative savings and lending institution operated for the benefit of all its members. It is a local organization and is not to be confused with any concerns doing a nation-wide business. Building and loan associations are noted for their low cost of operation and for the economy of their management. Their shareholders save their money together, lend it to one another, and share proportionately in the profits.

The aim and purpose of a building and loan association is to aid and encourage its members to learn and practice thrift by regular systematic savings, and to provide ways and means by which every family may procure a home. It affords the wage earner and salaried man, as well as other investors, a safe place to accumulate their savings with maximum interest. Then it lends the money so acquired to the man buying or building a home and allows him to repay the loan by small weekly or monthly installments distributed over a long period.

The plan in use by most of the building and loan associations in North Carolina provides for the payment of 25 cents per share per week, payable weekly or monthly. A share matures when the total paid in together with the profits amounts to $100, which the shareholders then receive in cash. The usual period required is about six and one-third years, which means that every payment has earned over 6 per cent simple interest.

People with lump sums may secure a 6 per cent investment by paying for shares for the whole period at the time of purchase, the cost being about $72.50. Some associations also offer dividend bearing shares at $100 each, which earn about 5 percent interest, payable annually or semi-annually.

Loans are made to members only and are secured by first mortgages on real estate. The borrower is required to carry one share for every $100 borrowed as a means for the repayment of his loan. He pays the interest on his loan, not for a year or for six months at a time, but weekly or monthly along with his payment of principal. The weekly payment on a loan, then, for every $100 borrowed is 25 cents principal and 6 percent interest, making a total of 36.6.—E. Y. Keesler in Charlotte Observer.

KNOW NORTH CAROLINA

Home Ownership

Forty-three and one-half percent of all farms in North Carolina are operated by tenants, and 52.6 percent of all homes, town and country, are occupied by renters. In farm tenancy ratios North Carolina ranks fortieth among the states, while in the percent of all homes occupied by owners, farm and others, 27 states make a better showing. Except for our excessive farm tenant ratio North Carolina would rank fairly well among the states in home ownership.

Between 1910 and 1920 there was an increase in the percent of farms operated by tenants, but a general trend towards home-ownership on the part of non farming classes. Although our farm tenants increased by more than ten thousand, the percent of all homes rented, farm and urban, decreased from 53 percent to 52.6 percent; the percent of all homes owned free of encumbrance increased from 38.6 to 39.3 percent. The percent of all owned homes owned free of encumbrance increased from 82.2 to 82.9 percent, in which respect North Carolina ranks best among the states of the Union. However, less than half of the people of the state live in homes of their own, and 27 states make a better showing than North Carolina.

THE GREAT HOME BUILDER

Perhaps the greatest home builder in America is the Building and Loan Association, an American plan originating in Philadelphia, the city of homes. At the present time there are more than eleven thousand building and loan associations in the United States with a combined membership of more than eight million shareholders. The assets of these associations of and for home builders amount to about five billion dollars, or twice the total of all wealth listed for taxation in North Carolina. The assets of these associations are increasing at a very rapid rate, having more than doubled within the last six years.

In North Carolina

In a brief table which appears elsewhere will be found a summary of the the main facts concerning the present status and recent growth of building and loan associations in North Carolina. Since 1904 the building and loan associations have been under the supervision of the State Insurance Commissioner, and during all these years there has been no failure among the associations. In 1904 the assets of the associations in the state totaled $2,542,800. In 1924 the assets had grown to the respectable sum of more than seventy million dollars.

The most rapid growth has occurred during the last five years, the main facts concerning which appear in the accompanying table.

There are many benefits to be derived from building and loan associations. However, their main purpose is to enable people to own homes, through a convenient plan of savings or repayment. A partial estimate of their worth to our state is readily seen when we learn that in 1923 more than six thousand homes were built or purchased through this plan, and in 1924 nearly eight thousand homes were provided by this plan, or enough homes provided in one year to house the entire population of the largest city in the state!

The possibilities of such associations are readily seen when we recall that their assets during the last five years have grown from 23 million dollars to more than 70 million dollars. If these associations continue to grow it will not be long before home-ownership among our townspeople in North Carolina will be the rule and not the exception. Indeed much has already been accomplished in reducing the urban tenant rate. A home owned by the occupant is the ideal of the building and loan association. It is a most worthy ideal.—S. H. H., Jr.

RURAL ELECTRIC POWER

VII. POWER FROM FUEL

The generation of electric power by falling water has been discussed in previous articles. Other sources of power were mentioned in those articles, namely, steam and internal combustion engines and the large power company. This article and the two articles that follow will consider, briefly, steam and internal combustion engines, which fall under the general classification of heat engines.

In a heat engine the latent heat energy in some fuel is changed into mechanical energy, which may be used directly in the driving of various machines, or in the generation of electricity. In the case of water power, water is the vehicle, or working substance for the production of power. In heat engines the working substance is steam or gas and, as in the case of falling water, the steam or gas must be under considerable pressure. This pressure is produced by the burning of some form of fuel, either under a boiler for the production of high pressure steam or directly in the cylinder of an internal combustion engine. It may be seen then, that the amount of power obtainable from engines is not limited as in the case of water power, for some form of fuel is generally available in any amount anywhere. Frequently, therefore, in water power plants, steam or internal combustion engines are installed to help carry the load during certain seasons of the year.

Cost of Heat Engines

It is impossible to make direct comparisons of the ultimate cost of power for the various types of heat engines because the different elements of the total cost, such as cost of fuel and labor, vary widely with locality. Investment charges also vary widely. Greater economy of fuel may be obtained by the installation of the more efficient types of internal combustion engines. In both cases the first cost will be higher than with less efficient types, and, therefore, investment charges will be greater. In considering any individual case it must then be decided whether or not the installation of high efficiency engines will result in a sufficient saving in fuel cost to more than offset increased investment charges. As an example, the oil engine converts a greater percentage of the heat energy in the fuel into work than any other heat engine. Its greater first cost and the high cost of the fuel it uses, however, have retarded its adoption in place of steam engines, except where oil is cheap and plentiful.

Steam Engines

The term steam engines, as here used, includes reciprocating steam engines and steam turbines. Every steam power plant requires boilers, chimney, feed water pumps, a large amount of piping and other auxiliary equipment in addition to the engines themselves, and this fact should be taken into account when comparing steam plants with the greater simplicity and lesser space requirements of internal combustion engine plants.

In the reciprocating engine heat energy is transformed into work by direct action of the steam against the piston. In the steam turbine heat energy is first converted into kinetic energy by expansion through nozzles, the kinetic energy subsequently being absorbed by directing the high velocity steam against blades or vanes on a wheel. The action is similar to that of water in the impulse water wheel. In other turbines the steam is allowed to expand in the blades of the wheel and drive the latter by reaction similar to the action of water in the water turbine.

Choice of Engines

In comparing the steam economy of reciprocating engines with that of steam turbines it way be said that the best turbines show no advantage over the best engines. The average large turbine, however, is superior in this respect to the average large engine. In small and medium sizes, those in which readers of these articles may be interested, the steam engine is superior.

Thus, from the standpoint of fuel economy, there may not be any choice between the two. There are, however, certain applications and advantages that may dictate the choice of the turbine. The turbine is essentially a high speed machine and is particularly suitable for the driving of electric generators, centrifugal air compressors, fans, blowers, etc. Turbines require less floor space; they have great uniformity of rotation and less vibration, and therefore require lighter foundations; with widely fluctuating loads their steam consumption does not vary as much from the best value, that corresponding to normal load; the first cost of turbine and generator is generally less than that of engine and generator of the same capacity. Turbines ordinarily are not suitable for belt driving because of their high speed, or for applications where a large effort is required in starting the load.

The next article will consider internal combustion engines.—E. G. Hoefer.

FARMER BUILDING AND LOAN

In North Carolina the building and loan association plan is now used exclusively by town and city people. The plan was designed to promote urban home ownership. However, there is no essential reason why the same plan cannot be used by farmers to reduce farm tenancy, provided the farmer can meet the weekly or monthly payments. The farmers of Ohio employ the building and loan to great advantage. The same plan now being used so extensively by our urban residents is available for farmers. The legislature some years ago enacted a Land and Loan Association law, the purpose of the law being to extend the benefits of the building and loan plan to would-be home and farm owners. The reader who might be interested in such an association is referred to sub-chapter 2, Land and Loan Associations, sections 5204-5207 of the Consolidated Statutes.

GROWTH OF BUILDING AND LOAN ASSOCIATIONS

Dec. 31, 1919 to Dec. 31, 1924

The following table based on reports of the Insurance Commission presents the main facts showing the remarkable expansion of the building and loan idea in North Carolina during the last five years.

	1919	1921	1924
No. Associations reporting	141	186	247
No. white shareholders	45,476	53,324	71,301
No. colored shareholders	7,645	7,959	10,173
Total assets	$23,452,771	$37,666,451	$70,248,910
Shares of stock in force	616,001	970,795	1,516,630
Shares subscribed during year	283,120	311,930	457,724
Average interest rate earned	.055	.05365	.05928
Average expense ratio	.0391	.03617	.03079