

# Herty And The Pines

Nearly, or quite thirty years ago, Charles Holmes Herty invented the turpentine cup which eliminated the necessity for "boxing" the pines themselves. The invention came too late to have any effect upon the pine forests of North Carolina. In Georgia, Alabama, Mississippi, Louisiana, and Texas, the saw mill followed too closely after the turpentine for the invention to have much effect in those states in preserving the long-leaf pines.

Quite recently, the same gentleman has made a discovery that enables him to declare that the young long-leaf pines are available for pulp wood for paper making. The discovery, proved by chemical analysis, is that the healthy or uninjured long-leaf pine has no turpentine in it while growing. The turpentine is a remedial preparation on the part of the tree to cure injuries. Accordingly, a healthy uninjured growing pine has no more turpentine in it than a man's blood has the gristly substance in it that proceeds to accumulate at the point of fracture of a bone. Both are creations for healing purposes.

### Green Pines For Paper-Making

Prof. Herty, in accordance with his discovery, advises that the long-leaf pines must be used immediately after cutting for paper-making, since the cut pines, still full of sap, would undertake, so long as this sap lasts, to heal what they do not know to be fatal injuries. Thus pines allowed to dry out, according to Prof. Herty's view, would have produced considerable turpentine during the drying process, and thus have unfitted themselves for use in making paper. Also, Mr. Herty discovers that the pines are considerably advanced in growth before they have any great amount of heart wood, which the scientist seems to consider unfit for paper-making. Accordingly, young long-leaf pines only can be used for pulp wood, and must be so used immediately after they have been felled.

### The Origin of the Long-Leaf Pine

For many years, the editor of the State's Voice has been interested in the long-leaf, or as more generally called in the pine belt, the long-strawed, pine. Reared among them, he always feels that he is in his own country when among the long-leaf pines. He recalls how he felt like shouting when, after living in the mountainous section of Greenville county, S. C., for two years and having driven down the ridge road through Clinton, Laurens, and Newberry and across the Saluda to the right he came upon a clump of stalwart long-leaf pines as he climbed the hill from the Saluda.

### The Primeval Pines

Scarcely a man living in North Carolina has ever seen the pines in their glory in this state. The writer had the privilege of reaching Louisiana in time to see the woods in their pristine grandeur. The turpentine and the saw mill man were fast making a barren of the woods and it is presumable that the work of ruin has been almost completed by this time. But 20 years ago there were untouched areas where one might look across the woods, unhindered by undergrowth, till the very boles of the pines cut off his view. Those Louisiana views have enabled the writer to envisage eastern North Carolina as John Lawson saw it, or as "Horse Shoe Robinson" in his notable journey across the state, as recounted in that once famous story.

### Short-Leaf a Late-Comer

With the passing of the long-leaf pine in eastern Carolina the short-leaf varieties have occupied the field except in the sandhill sections where there were few short-leaf seed trees. In truth one might judge, on viewing the landscape now, that they were the primeval variety. But all the circumstances indicate that they are invaders of a field long pre-empted by the long-leaf variety. When the short-leaf variety reached the long-leaf belt all the dry lands, upon which only the long-leaf will grow, had been pre-empted by the first-comer. The interloping short-leaf set sentinels in the swamps and marshes, biding their opportunity. It came. Fields were cleared worn out, and unfenced. From the long-waiting, but vigorous, sentinel in the swamp came a shower of tiny mast which soon produced a multitude of "old-field" pines. But if the fence had been kept up after cultivation of the field had ceased, the interloper didn't

occupy, but the long-leaf variety.

### A Notable Illustration

The writer recalls a striking illustration of how fences determined the variety of pine that should occupy the worn-out field. Two fields lay side by side. Both were worn out. The one lost its fence; the other retained its. The former field had a magnificent stand of long-leaf pine; the latter a thickly set stand of short-leaf. The old fence divided the two varieties, and the worn-out course might almost have been determined by the division line between the two kinds of pines.

### The Key to the Phenomenon

Nature had sown seeds of both varieties on both fields. It is natural to assume. The "piny-woods rooster" had eaten the long-leaf mast that fell in the unfenced field, or rooted up the young pines, for the hog relishes the sap of the long-leaf's roots. The short-leaf mast occupied, for it is too little to be easily found or greatly relished by hogs. In the fenced field, the more vigorous setting of long-leaf, evidently, overcame and suppressed the short-leaf seedlings.

### Whence The First Seedling

It is interesting to speculate upon the source of the first seedling of the long-leaf pine. The coastal belt, the habitat of the tree, is declared by geologists to be one of the latest sections of America to rise above the sea. The red hills of Chatham seem to have stood out ages before the sand hills of western Harnett and of Moore county ceased to be sea beaches. When the coastal belt had become dry land there was no long-leaf pine to the westward to furnish the mast for the primeval planting of the long-leaf forests. Yet the long-leaf came and occupied before the short-leaf could get set from the hill lands to the westward. The long-leaf, with an even start, can master the short-leaf, as indicated by the two fields mentioned above. But if the short-leaf had got into the field earlier, it would have left no room for the long-leaf to get a strong foothold, for the short-leaf pine occupies both wet and dry lands. The short-leaf seedling seems to have proceeded from the westward; the long-leaf from the eastward. When they met, the short-leaf could still proceed to occupy the tussocks in the swamps, there to await their opportunity. But the long-leaf could not make way among the hardwood forests or the piedmont hills, where the short-leaf was already established. Not only did the preoccupation forbid, but the harder soil would hinder the setting of the seed that might drift into the pre-occupied territory. Accordingly, the westward boundary of the long-leaf pine belt almost necessarily coincides with the border of the coastal plains.

### Few Forests of the Pine

A fat pine stump is almost everlasting; so is a fat log or a "lightwood" knot. Only fire will destroy these. But the fact pointed out by Prof. Herty's discovery, that there is no turpentine in a healthy tree permitted such vigorous pines in the early days as were overwhelmed by storms or stricken by lightning to rot as readily as an oak log would. Even if the tree did contain turpentine enough to preserve it against decay, the fires of the centuries finally left no vestige of it. As the trees grew only on dry land, there was little opportunity for them to become petrified or covered with soil so as to be protected against fire. However, the writer definitely recalls a fat pine log discovered under three or four feet of swamp muck when a ditch was being cut. This would indicate that there was a long succession of pines, for it required many centuries, presumably, to build up that depth of soil in the creek bottom, a soil consisting wholly of decayed vegetation. The log lay upon the white sand underlying the muck, and may have been whirled down the valley by waters before the blackgum growth had got set and begun its work of muck building.

### The "Yellow" Pine

The mature pine, like the mature cedar, has very little sap. One can look at a load of cedar poles as it is brought into Pittsboro and tell at a glance which were practically no longer growing and which were of vigorous growth. Some very small poles are nearly all red heart wood, with scarcely a half-inch thickness of the white sap wood. Others are nearly all sap. Similarly with the pines. But our fathers and grandfathers mis-

took the great old heart trees for a different variety and called them the "yellow" pine; while the vigorously growing trees were termed "pitch" pines. From the "yellow" pine, almost all heart, little turpentine could be got. Hence the distinction. But those yellow pines, of the most aged of the pines, were not very numerous even in my father's day. They soon fell victims of the timber man, the sawmill man, or the rail-splitter. Consequently, few living North Carolinians have seen many of the really primeval pines. Probably the most of the turpentine trees had grown up since the first English settlement in eastern Carolina.

### Observations Confirm Herty

If the writer had been asked forty years ago if the long-leaf pine, vigorous and uninjured, had turpentine in it, he could readily have answered the question from his own observations. When his mind is turned to the hitherto insignificant facts evinced by many observations, it is clear that it would have taken no chemist's analysis to convince one that the long-leaf pine while in vigorous health and uncut has no turpentine in it, and that such a tree when cut down will rot as readily as will an oak log or a short-leaf pine log, leaving only a few tiny knots of fat pine. These knots, under the Herty theory, became turpentine soaked when the tree was protecting itself against the decay or disease which caused the loss of the limb that grew from the knot.

You may split a limb or knot from a vigorous pine when cut down and find no evidence of "fat" wood in it. And the limbs left will rot without leaving a vestige of "fat" wood. On the other

hand, if a tree has been diseased and the fight for life has been long continued, when it finally dies every limb on it will be "fat as fat" and the light-wood bole will stand for many years without decay. Similarly, a diseased limb on the same pine that bears the vigorous limb without indications of "fat" will prove to be "fat" when the tree is cut.

All these observations, and many more of similar import, bear out Prof. Herty's pronouncement that a vigorous pine has no turpentine in the sappy part. And one may go further and declare that there is very little turpentine in the heart of a tree that has never been diseased or injured in any way. But there are few which, during the long period necessary to grow a heart of considerable size, have not been in small ways injured or which have not been more or less affected by the disease, or felling, of the limbs which have fallen away. The heart of such a pine will rot, leaving only a few very thin streaks of fat wood. The man who has scabbled the woods for "lightwood" as many times as the writer did in his boyhood can recall the decayed trees with the everlasting knots left and the thin fat flakes imbedded throughout the decayed mass of the body of the tree. He will also recall some logs that were all fat.

So one may not only affirm the finding of Prof. Herty, but may, with rather full assurance, declare that the "fat" pine which for generations furnished the lights for coastal-belt families and was the source of the classical tar of Tarheel was a consequence of disease and hurts of the long-leaf pine.

# The Mystery Of Wiregrass

By "wiregrass" we mean the tussocks of grass that grow in the piny woods of the coastal belt, and not Bermuda grass, as that grass is frequently misnamed in North Carolina.

### Wiregrass Like Melchizedek

Wiregrass seems to be like Melchizedek, Abraham's friend, who is declared to have no beginning or end. The writer is confident that he never saw a young bunch of wiregrass. He confidently believes that every bunch of wiregrass in North Carolina has existed indefinitely.

When a wiregrass tract is cleared and the primeval tussocks of the grass once destroyed, there is no more wiregrass on that field. The woods may burn and the grass be leveled with the root stump, but out it comes again and by the following fall is apparently the same bunch of wiregrass. In fact, wiregrass furnished the early pasture in eastern North Carolina in the earlier days. The woods would be burned off in the winter and the wiregrass would shoot up its tender strands, upon which cattle could feed till it grew tough, in accord with its appropriate name wire-grass.

The writer is confident that a visit to the old Buckhorn farm in Sampson would reveal the very same clusters of wiregrass that he knew as a boy, and without noticeable increase in size—these and no others. An ant colony may destroy a tussock of wiregrass or one may be dug up and destroyed. But, as a general condition, an uncleared piece of wiregrass woods now has upon it the same tussocks of wire grass that were upon it before the Confederate war, and perhaps, a thousand years ago.

### "The Devil's Tramping Ground"

In southwestern Chatham is what is known as the devil's stamping ground, or names of similar import. There is a circular path with what the writer has been informed is the coastal belt wire grass growing on each side of it but nowhere else within or without the circle enclosed by the path. This condition seems to have existed from times immemorial.

### An Indian "Stonehenge"

The writer has conceived the circle to be a relic of Indian days. It is probably a place of former religious rites and the wiregrass clusters hedging each side of the path have formed as definite and almost as permanent a memorial of the days of the rites as do the great stones at Stonehenge, England, of the blooming days of the Druids. If it is wiregrass (the writer has still failed to make a long contemplated visit to the spot), it is presumable that the Indians dug up the clumps of grass in the wiregrass woods only a few miles distant, in Moore county, and transplanted them about their circle.

The fact that there are no new plants of the same kind near the ancient cir-

cle of the grass, largely confirms the writer, without a visit to the place, that it is the coastal plain wiregrass. If so, the fact that there are no new plants confirms the writer's observation that the wiregrass does not reproduce itself, and that all there is today has existed from times immemorial.

Wonder if this subject does not deserve the attention of the state's botanists. If we are mistaken about the non-reproduction, we should be glad to be informed to the contrary.

### VIEWS OF NORTH CAROLINA'S GRAND OLD MAN

The following article, in the form of a personal letter, was received by the editor of the Voice on the last day of 1931. As the expression of the views of North Carolina's grand old man, Capt. S. A. Ashe, oldest of the state's journalists and its principal historian, we are sure it is in this the first number of the State's Voice. We hope Captain Ashe may live to furnish us with other expressions of his views. At 92 he seems good for a hundred. His article follows:

Dear Mr. Peterson:  
Please let me call your attention to the effects of so many banks closing their doors upon their respective communities.

A community has a bank. The people deposit their money in it. It closes. The money of the community is locked up, and may all be expended in paying some debt the bank owes in New York, say, while the reason for authorizing that bank was that it might serve the community.

The money in its vaults was put there for their own use. When a bank closes there should be a lien, by act of the General Assembly, in favor of the depositors upon the money remaining in the vaults, and the Banking Department should be required to put an officer in charge, who within ten days should distribute that cash among the stockholders (probably meant to be depositors—Ed.). Why not? Besides that matter of the protection of depositors, I would like to see the first sentence of Section —, of Article 11 of the Constitution changed by striking out the word "only, and at the end of the sentence adding the words: "and such other presentments as the Legislature may prescribe."

If we had the whipping post, many of the horrible crimes that now disgrace our state would cease; men and boys would be deterred from those crimes.

Again, I should like to see every man without a job started to work making his own living on farms.

Happy New Year to you,  
Very truly,  
S. A. ASHE.

Raleigh, Dec. 30, 1931.