

leaf lands. The game manager can so conduct his work as to incidentally grow much valuable pine timber, and those interested in forestry who desire to encourage quail as a by-product of forestry, can produce many of these fine game birds with management practices, including controlled fire of the frequency that now seems desirable for the welfare of the longleaf pine forest.

In both cases, there is need for men thoroughly versed in the use and control of fire, who also know the requirements of the forest, and of the quail, wild turkeys, and other valuable wildlife which inhabit the forest, if intelligent management of these natural resources is to result.

*Chairman Butler:* The next speaker, I understand, Mr. Chacey Kuehn, of Geor-

gia Forest Products Company, has been prevented from attending this meeting so we will pass his paper.

I have tried to get these very splendid papers presented to you, with as few words on my part as possible so that you would have ample time for discussion.

We have to give up this room at five o'clock, which leaves forty-five minutes for discussion.

Before we begin, I want to call on one man that I know all want to hear from. He has been interested in forestry almost from the beginning. When we think of southern forestry, we just naturally think of Henry Hardtner. Mr. Hardtner has been so interested in this meeting this afternoon that he has come all the way from Urania to tell us something about his own experiences in the use of fire.

## A TALE OF A ROOT—A ROOT OF A TALE OR, ROOT HOG OR DIE

By HENRY E. HARDTNER

*Urania Lumber Company, Urania, La.*

I HAD been a conservationist all my life, and especially in my study and treatment of forests. It now seems as if I had to blaze a reforestation trail for others to follow as I found no landmarks to guide when I took up my forestry work in earnest.

There was a big longleaf pine seed crop in 1913, which fell in the month of October and soon there were millions of seedlings in the sedge grass. February 21, 1914 a fire was set by sparks from a Missouri Pacific locomotive and a part of the area burned. We had just commenced our reforestation work and felt the loss of this area very keenly. The railroads were considered the chief offenders in those days, so we brought suit

for many thousand of dollars damage because of this burn. After my anger was over and being a railroad president myself, I withdrew the suit with the understanding the railroad rights of way were to be kept fire proof thereafter.

Again on December 15, 1915 this same area burned together with 50 acres more. "There was high wind—heavy sedge grass—a hot fire." On January 1, 1916, I walked over these burns and estimated that fully 50 per cent of the seedlings had survived. On April 30, 1916, I estimated 2,000 seedlings to the acre. On February 10, 1917, I noted in my record book—"Perfect stand—fire was beneficial." Many similar observations were made of other areas from time to time.