

any accrue, being universally enjoyed;

And, whereas, the future usefulness of the association depends upon its strength which can only be evidenced by a cohesive membership,

And, whereas, a large number of the enrolled members of the association are in arrears with their dues, resulting in a greatly depleted treasury,

And, whereas, the real purpose of the association cannot be successfully carried into effect without funds, and the unified support and maintenance by the operators and factors throughout the entire turpentine belt,

Therefore, be it Resolved, That this association take a recess of one hour during which time the Secretary with such assistance as he may require, shall open the books of the association, receive dues from any and all members in arrears, and receive applications from all persons engaged in the turpentine industry. And that upon the reassembling of the association only regular enrolled members in good standing be allowed to participate in the deliberations of the association.

Paid Their Dues.

During the recess that ensued under the above resolution, the secretary and Messrs. J. R. Powell, T. C. Hall, W. P. Corbett, C. T. Boyd, C. H. Davis and P. L. Sutherland, who were appointed to assist him, were kept busy receiving dues and enrolling new members.

Quite a number of those present expressed themselves heartily in favor of organizing the association along strictly business methods and thought to do this steps should be taken to secure as members every person engaged in the manufacture of naval stores in the turpentine belt along the Atlantic and Gulf coasts.

After the dues had been collected as far as possible a recess was taken until 2:30 o'clock.

Committees Appointed.

Upon reconvening in the afternoon the first business was the appointment of committees by the chair, as follows:

On nomination of officers for the ensuing year: R. S. Hall, chairman; T. A. Alford, W. C. Jackson, C. H. Davis and P. M. Padgett.

On resolutions: W. S. Jennings, chairman; Dr. E. P. Rose, P. L. Sutherland, T. H. Jarman and A. Sessoms.

These committees were requested to report at the morning session of the second day of the convention.

A letter was read from W. A. Lloyd, general secretary of the Young Men's Christian Association, extending to the membership of the association a most cordial invitation to visit the handsome home of the association in Jacksonville, which has just been completed.

From Forestry Service.

President Boyd then introduced Mr. Royal S. Kellogg, assistant forester of the Forest Service, United States Department of Agriculture, who had been assigned by Chief Forester Gifford Pinchot to personally represent him at the convention. Mr. Kellogg delivered an address of great interest to all present, as follows:

The naval stores industry is one of

the oldest industries in the United States, deriving its name from the fact that in the early days pitch from pine trees was commonly used to make wooden vessels watertight. The term has persisted to this day, though the products long ago found other and more important uses.

The turpentine of pine timber began in New England with the "pitch," or yellow pine, of that region, and that the colonists were alive to the value of pine timber and the damage done to it by irresponsible boxing is indicated by the following Act passed in Massachusetts in 1715:

"Whereas there has been waste and stroy made of pine trees, and other timber within this Province: For prevention whereof,

Be it enacted by His Excellency the Governor, Council, and Representatives, in General Court assembled, and by the authority of the same,

That from and after the publication of this act no person or persons may presume to cut or carry off any tree, trees or timber, bark or box any pine tree or trees, for the drawing of turpentine, standing upon any of the lands belonging to this Province, proprietors, townships or particular persons, without leave or license first had and obtained from the owner or owners thereof; on pain of forfeiting and paying the sum of twenty-five shillings, for every tree so cut or removed, barked or boxed. And the turpentine drawn from them, when found either in the trees aforesaid, barrels or other vessels lying upon the said lands, to be alike forfeited; one moiety thereof to the respective owners of the land and trees, the other moiety to be to him or them that shall inform or sue for the same, before any Justice of the peace in the county where the offence is committed, if the forfeiture exceed not forty shillings, but if above that value, in any other His Majesty's Courts of Records, within this Province."

It was in North Carolina that the first extensive development of the naval stores industry occurred. The records show that from 1768 to 1770 the average exports of naval stores to England included 88,111 barrels of crude turpentine, 20,646 barrels of pitch, and 88,366 barrels of tar. Most of the crude was shipped to England for distillation through the ports of Wilmington and Newbern. The supplanting of the iron retort by the copper still in 1834 greatly increased the output of volatile oil and gave much impetus to the industry. However, previous to 1844 not over one-half of the production in North Carolina was distilled at home. Then, because of the poor market for rosin, the stills were transferred from the ports to the woods, and a heavy onslaught upon longleaf pine forests of the South began.

North Carolina reached its maximum in naval stores production in 1879-80, with an exportation of 6,279,250 gallons of turpentine, and 663,967 barrels of rosin. A comparison of this great exportation with a total production in North Carolina in 1908 of 732,300 gallons of turpentine and 131,900 barrels of rosin tells the story of the exhaustion of the longleaf pine in that State. South Carolina

attained its maximum output of navel stores in 1882, only two years after that of North Carolina. The invasion of new forests of virgin timber brought Georgia to the front a few years later, but recently that State has been surpassed by Florida, which now is producing nearly one-half of the total value of the yearly output of the naval stores industry. After following the longleaf pine forests to their southern limits, turpentine swung westward across Mississippi, Louisiana and Texas, the latter State having become a considerable producer only within the last seven years.

Until recently naval stores were entirely produced by one of the crudest and most destructive systems of forest exploitation ever devised. You know full better than I the damage by fire and storm that has followed the turpentine box. You know that thousands, yes millions, of acres of splendid longleaf pine forests have been abandoned and destroyed after three or four years of turpentine, and that the valuable timber which they contained was never utilized. The earlier operations of the turpentine were comparable in their destructiveness only to those which swept the buffalo from the western plains. The buffalo was killed for the hide and horns; the longleaf pine tree for a gallon or two of turpentine and a few pounds of rosin.

The destructiveness of the box system at last became so apparent and widespread that to perpetuate their industry, the operators were forced to turn to other methods. Various substitutes were proposed, and experimental work of the forest service in methods of conservative operation dates from 1901, when Dr. Herty un-

within the last five years have these improved methods been introduced upon a commercial scale. Yet the fact that already one-seventh of the entire output of naval stores is by these methods, and that in the newer fields and most up-to-date operations they are used most largely demonstrates that they have passed far beyond the experimental stage.

Another step toward increasing our knowledge of the naval stores industry was taken when at the instance of Senator Taliaferro, the agricultural appropriation bill for the fiscal year beginning July 1, 1908 provided \$10,000 for an inquiry "into the destruction of forests by the production of turpentine and rosin and the sources and methods of the industry." To carry out the provisions of Senator Taliaferro's amendment, the Forest Service detailed to the work Mr. John O. LaFontisee of Jacksonville, and Mr. Asa L. Brower, a graduate of the School of Forestry of the University of Michigan. With Mr. LaFontisee's energy and sterling qualities you were acquainted even better than were we in the Forest Service. We who worked with him sincerely regret his untimely death, and we both realize full well the real loss which it brought to the naval stores industry.

Mr. LaFontisee and Mr. Brower traveled through every part of the South gathering statistics of production, and making a careful study of the longleaf pine forests. The facts which they secured and the conclusions which they reached give most valuable information upon the present status of the industry. Reports and estimates of the output of the more than 1,600 operations in 1907 and 1908 totaled as follows:

	1908		1907	
	Turpentine Gallons	Rosin Barrels	Turpentine Gallons	Rosin Barrels
Florida	17,030,300	1,932,114	15,572,700	1,774,370
Georgia	10,347,800	1,203,059	10,119,500	1,173,575
Alabama	3,744,050	446,909	3,544,300	418,496
Mississippi	2,277,850	277,704	2,232,500	255,307
Louisiana	1,696,250	195,804	1,134,100	126,346
North Carolina ..	732,300	131,907	916,400	168,561
Texas	200,650	28,125	586,950	75,057
South Carolina ..	559,800	72,661	74,350	7,609
	36,589,000	4,288,283	34,180,800	3,999,321

dertook the studies, with whose splendid results you have long been familiar. The efforts of Dr. Herty and other experimenters have demonstrated conclusively that improved methods, in which a cup is used to catch the crude turpentine and the box done away with, result in the production of a larger quantity of turpentine and rosin, higher grades of the latter, longer life to the timber, and greatly lessened damage from fire and wind. The introduction of these methods is the first step in conservative turpentine. Because of the increased initial cost of the equipment, such methods have not appealed to the smaller operators who have little capital, and whose operations extend over only two or three years in a given locality. They are unquestionably profitable to the larger operators and especially to those who, working upon their own timber, have the most inducement to handle it carefully. Only

They found too, that of the total production in 1908, only four years after the introduction of improved methods on a considerable scale, 13.8 per cent was by these methods, a most gratifying showing. More important than this were the statistics secured upon the yield of turpentine per crop in the various States, and the influence of improved methods upon this yield. The following table gives the average yield of turpentine per "crop" of 10,500 "boxes" or cups, reported and compiled by States, together with the percentage of turpentine produced in each State by improved methods of turpentine.

State	Yield per crop Casks.	Percentage prod. by Imp. Meth.
Alabama	35.6	8
Florida	29.8	16
Georgia	26.5	9
Louisiana	44.7	44
Mississippi	34.5	11
Texas	43.5	49