

TURPENTINING the PINE FORESTS

BY
HERBERT F. JACKSON.

THROUGH the improvement in the systems of turpentine the south has taken a long step forward in the movement of the protection and development of one of the country's most important natural resources, the rich yellow pine forests which make the white States lead in these products. Improved methods of turpentine are first established to an appreciable extent during the producing season of 1904, when the cup and gutter system was installed by a number of the most enterprising manufacturers of navel stores in Georgia and Florida. Since that time there has been a steady and satisfactory increase in the percentage of turpentine and rosin



CLEANING THE GUTTERS PREPARATORY TO DIPPING

In produced by these conservative methods. The work in conserving these vast turpentine resources of the south has perhaps come in time to stay the early destruction of yellow pine forests threatened by years of careless management.

Experiments conducted by the United States Forest Service at Ocala, Fla., and Green Cove Springs, Fla., as well as definite and reliable data received from operators throughout the navel stores belt, have effectively demonstrated the great advantages of the new methods over the old. Not only has it been shown forcibly that the conservative methods are of great protection to the forests, but sufficient data has been collected to show that the increase in yield of both turpentine and rosin by the new and improved systems furnishes a strong argument in favor of their use.

Reports from the states where navel stores are produced show that where there is a greater percentage of turpentine produced by improved methods there is also a greater yield. The following table gives the average yield of turpentine per crop of 100 boxes or cups, reported and compiled by states, together with the percentage of turpentine produced in each state by either the cup and gutter or cup and apron systems.

in which are not in use.

State.	Yield per Cup or Gutter.	Percentage produced by Improved methods.
Alabama	35.6 casks	8
Florida	29.8 casks	16
Georgia	26.5 casks	9
Louisiana	44.7 casks	44
Mississippi	34.5 casks	11
Texas	43.5 casks	49



BOXING A TREE

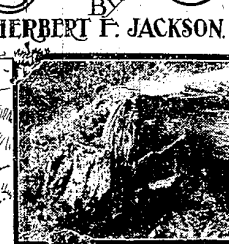
Accepting the information contained in this table as a basis for comparing the results of the new methods with the results of the old system of cutting the destructive boxes in the trees, some allowance should be made for the difference in quality of timber as well as the age of the industry in the states given. The timber in Texas and Louisiana is considered superior to that in Georgia and Florida



CHIPPING FOR CUP SYSTEM



THIRD YEAR BOXED TREE OPERATED BY CUP SYSTEM



FALLEN TREE—TOO MUCH BOXING



WORK FOR MORE KINDERGARTEN.



THIRD YEAR BOXED TREE OPERATED BY CUP SYSTEM

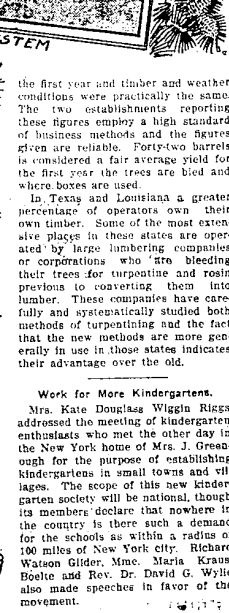
and the industry is not so old in the two western states. But the improved conditions under which turpentine and rosin are manufactured in Texas and Louisiana will not account for more than one-fourth of the increase in yield. To demonstrate more fully that the use of improved methods is largely responsible for the remarkable increase shown, the reports from two of the large establishments in Texas, one using the cup and apron system and the other cutting boxes into the tree, are compared. The establishment using the cup and apron system reported a yield of 1,372 barrels of turpentine for 20 crops, as against a yield of 1,200 barrels of turpentine for 25 crops where the old methods were employed. 65.2 casks per crop for the cup and apron system as against 42.8 for boxes. Both companies were operating for



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WESTERN CANADA'S HAPPY PROSPECTS.

In no year since the development of Western Canada began has spring brought a brighter outlook than it brings this year. In no preceding spring has there been greater assurance of advancing development and prosperity. The movement of immigration has already assumed large proportions, and as it is desirable in character as it is satisfactory in volume, from across the Atlantic sturdy, industrious and thrifty newcomers are arriving in large numbers, homeseekers from Ontario and the other older Provinces are coming in a steady stream, and from across the immense almost boundless movement is already in full flow, which it is confidently predicted, will beat the records of all previous years; special settlers' trunks are crowding the docks, and with effects, actual material wealth being this brought into the country at the rate of millions of dollars worth monthly.

The movement is so unprecedentedly large that extra Dominion immigration officials have had to be provided at both North Portland and at Emerson, and it is estimated that the total number of new settlers from the United States this year will be 70,000, at least, and may run well up toward 100,000. Last year's total of new settlers from the South was 53,723; thus the area that will be placed in wheat and other grains this year will greatly exceed that of last year. Settlers are making extraordinary efforts to get on their hands and begin seeding operations. The price of wheat now, again above the dollar mark, is incentive enough, and when one has in view the splendid results that the past few years have shown, it is not to be wondered at that the prospect will be the banner year for immigration in Canada. Ask your nearest Canadian Government Agent for rates of transportation, and he will also send you illustrated pamphlets.



He—You have looked on my face for the last time!
She—Why? Are you going to grow a beard?

CURED ITCHING HUMOR.

Big, Painful Swellings Broke and Did Not Heal—Suffered 3 Years.

Tortures Yield to Cuticura.

"Little black swellings" work around over my face and neck, and they would leave little black scars that would itch so I couldn't keep from scratching them. Larger swellings would appear and my clot, as would stick to the skin. I went to a doctor but the trouble only got worse. By this time it was all over my arms and the upper part of my body in swellings as large as a dollar. It was so painful that I could not bear to lie on my back. The second doctor stopped the swellings, but when they broke the places would not heal. I bought a set of the Cuticura Remedies and in less than a week some of the places were nearly well. I continued until I had used three sets, and now I am sound and well. The disease lasted three years. O. L. Wilson, Furber, Tenn., Feb. 8, 1904.

Forster Bros & Chem. Corp., Sole U.S. Agents, Boston.

No Escape.

"The smell of smoke certainly does make me ill."
Then why do you allow your husband to smoke so much in the house?
"I might as well. When my husband isn't smoking the chair sits."

Don't Cough, But Live Long.

"If every cough were cured before it got a strong hold, human life would be prolonged by many years. If every cold suffered from that keeps its way would stop the cough in a few minutes. I would be glad to dispense the various cough medicines. If any medicine will cure a cough, Kemp's Rubens will do it. At drug stores and dealers, 25c."

Snubbed in Town.

"What are you doing now?"
"Striving for recognition."
"Seeking fame, eh?"
"Not exactly. I'm striving for a speaking tour with a girl who would be willing to be mine at the season."

Important to Mothers.

"Examine carefully every bottle of CASTORIA, a safe and sure remedy for infants and children, and see that it bears the signature of J. C. Williams. In Use For Over 30 Years. The Kind You Have Always Bought."

When Love Is Yours.

Maibol—Who was the best man at your wedding?
Ethel—Why, my husband, of course.

Red, Weak, Worn, Watery Eyes.

Believed by Murine Eye Remedy. Compounded by Experienced Physicians. Write Murine Eye Remedy Co., Chicago. No. 1234 N. Dearborn St.

Age and Experience.

As soon as we grow less, we grow less old.

Garfield Has brought good results to thousands.

Unexcelled for its simplicity, liver and kidney cleanser. Co. of New York. Buy from your druggist.

In one year the excitement phase of a watch number 721,890, registered.

WRIGHT AEROPLANE "BLUFF" MAKES GOOD

By HOWARD S. COLTER

WILBUR WRIGHT has proved to the satisfaction of hundreds of persons in France that the pretensions of the Wright brothers—that they had an aeroplane capable of flying were founded on "fact" for "fancy" (the "laby" word under which they merely kept on saying that their aeroplane had solved the flying problem, but they never showed the machine and they never discussed the keep or plans. This reticence had an effect naturally of making the French say: "That's just a bluff."

The Wrights, Wilbur and Orville, always have been very secretive about their invention. As is most generally known they took up the flying in about eight years ago. As is

Air resistance is a harder thing to tackle than water resistance. There are more obstacles and twists to the stream of air than there are in the Mississippi water. All these things made dirigible balloon flying hard, and it had killed absolutely aeroplane endeavor up to the time the Wright brothers began. The earlier aeroplanes had not been able to work out a scheme whereby the air resistance could be accommodated so that it would help the flying machine instead of dashing it to the ground.

The Wrights, too, believed that a man could make a much better wing than Nature had done. The resistance of feathers would not be present in a wing made of silk. Furthermore, because a bird sometimes has to alight, Nature has fixed the wings so that they may be folded. With an aeroplane that has nothing to do but fly there need be no device for collapsing the wings. They may stay extended all the time.

The earlier attempts at aeroplanes, Lilienthal's, Picher's, Langley's and Caudron's, all that something to the

ideas of the Wrights. They studied aeroplanes for years before they evolved the idea. It was in 1903 that after framing the machine of parallel box kites they got the idea of putting in a gasoline engine to run the machine and to force those changes of plane that would be inevitable in unfavorable windage.

They had a machine then that was merely a glider. It was picked up at either extremity by two men who ran with it for a distance until finally it caught the air and started off on its gliding. It was about this time that reports came east that there were two men in Ohio who had a flying machine that would fly. The Wright aeroplane had glided for a distance over ground, how great no one knew but the brothers and certain chosen friends.

That started the controversy over plane, a controversy that never was even partly settled until when the recent public flights began in France. The brothers made it a point of not unkindly persons should see aeroplanes, and many successful

models were destroyed because the brothers didn't want to risk having any one steal their ideas.

They started off to France, which has been and is the foremost in aviation, and tried there to enlist funds for their enterprise. They apparently wanted the French government to take their aeroplane mostly on trust. As a Frenchman remarked long after: "It was a fraudulent gold mine every one would have been willing to subscribe. But this turns out to be an honest enterprise, so, of course there was no eagerness to possess it for France."

It was their manner of conversation that aroused the antagonism of the Frenchmen who came in contact. Not all, but some of the aviators frankly did not like the Wrights and did not think it all a bunch scheme to get money for nothing. The Wrights kept close mouthed and let the discussion run on. They started experiments down in a spot in North Carolina, near a town called Kittyhawk. From this place day after day, came reports of flights, accidents, successes.

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