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## The

Disstor DISSTON CRUCIBLE

FEBRUARY

# DISSTON <br> A MAGAZINE FOR MILLMEN 

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# D. W. JENKINS APPOINTED SALES MANAGER 

## Mill Goods Department, Of Henry Disston \& Sons, Inc., Philadelphia

T1HE appointment of Mr. D. W. Jenkins - better known most everywhere that lumber is cut as "Dave" Jenkins-to the position of Sales Manager in the Mill Goods Department of Henry Disston \& Sons, Inc., Philadelphia, calls attention to the career of a man who is wellknown in nearly every branch of the lumber industry.
"Dave" Jenkins has had lumber and mill experience over nearly the entire country, from the Atlantic to the Pacificand fromSeattle down into the south.

Many years ago, Mr. Jenkins started his business life as a manufacturer of lumber in Kentucky. Later he joined the Disston organization - just about twenty-six years ago-as representative travelling out of the old Disston Louisville branch. When the Louisville branch was consolidated with the present Disston branch at Cincinnati, Mr. Jenkins moved with the branch and for three years travelled out from the Cincinnati office.

At the end of three years, he was transferred to the Disston general

offices in Philadelphia and travelled out from here, covering territory in the Middle west, for the following four years.

Then, in 1909, Mr. Jenkins was made Disston's Pacific Coast Manager. While in that position he organized the Company's present "rapid service branches" at Seattle, Portland, and San Francisco. He was in charge of these branches until January 1st, 1923.

Now he is Manager of Sales in the Mill Goods department located at Disston's Philadelphia offices.
His wide field experience, technical knowledge of the saw business, managerial ability, and his long term of service with the company well qualifies him for the position.

The Mill Goods Department includes all lines of circular, band, gang, drag, cross-cut, metal cutting, barrel and bilging saws, and the accessories of all these saws; chisel points, mandrels, machine knives, etc.

Mr. Jenkins will be glad to have a call from all of his many friends who at any time may have occasion to visit Philadelphia.

## ${ }^{6}$ Trees grow while we sleep, and add to our wealth by day and night."

## FEBRUARY-A SHORT MONTH, BUT LONG ON NOTABLE DAYS



Washington's valentine to his country

LINCOLN-A man of great ability, pure patriotism, unselfish nature full of forgiveness to his enemies; bearing malice toward none, he proved to be the man above all others for the struggle through which the nation had to pass to place itself among the greatest in the family of nations. His fame will grow brighter as time passes and his great work better understood. - U. S. Grant, 18th President of U. S.

[^0]Lives of great men all remind us We can make our lives sublime,

And departing, leave behind us Foot prints on the sands of time.


## FROM THE LOOKOUT TOWER

To the man in the Lookout Tower, this city today looks like one of the wartime pictures of a French battlefield. Every second house has a wire entanglement on its roof. There are barrelhoops, bicycle-wheels, wooden crosses, flag-poles, chimneys, on nearly every roof with wires draped over them in some fantastic pattern.

Investigation disclosed to us that this was not some new government plan for defense from aeroplane attack, but that all these wire entanglements were "antennae," and that each antenna had attached to it somewhere in the house below a "radio outfit."

We also found a new social distinction. There are now two classes in society-those who have radio outfits, and those who have not.

Quite naturally we promptly purchased a radio outfit of the species known as "crystal" so that we too might have an antenna over our house and enjoy a distinction like unto that of our neighbors who live in antennaequipped houses. But we were not content to keep our radio outfit as an ornament, we must make ours work; we must "receive concerts."

The hours-the evenings-we have wasted! Our ears are pressed back from constant contact with "headphones" until our friends scarcely recognize us. Our nerves are shattered from hours of searching for a nonexistant "sensitive-spot" with an absolutely ungovernable "cat-whisker."

We have given up our work and have taken to playing with the toys of our childhood again as the result of listening to endless hours of "bed-time stories for children" over the radio.

And then one eventful night we "got" a broad-casting station in Schenectady on our crystal set; here in Philadelphia, hundreds of miles awayon a crystal set, mind you. To see the green-eyed jealousy of our friend who had boasted to all who would listen when he "got" Pittsburgh, not nearly so far away, was payment enough for the work we had done.

From that night, there has been no
home life for us. Even the hours required to prepare this page are given grudgingly-becaues they keep us
 away from our radio. We scarcely take time to eat or to sleep. We have almost lost the power of speech because one cannot talk and listen to the radio at the same time. And now-now we are giving it all up. Our antenna will stay up to impress our neighbors and our friends, but our radio outfit must be dismantled and thrown away. Our heart goes with it, our evenings will be long and lonely, we will be shut off from the world without it-but it must go. It must go, because this morning our good wife asked what we would like to have for breakfast and unthinkingly we replied in the new language of the world, the universal tongue of future generations, the radio code:
"Dit-da —_da-dit — dit-da-da-dit da-da-dit."
Realizing that we have progressed ahead of our generation we bow to the edict of our wife who has, until this moment, been the most reasonable of women and put the radio from us until the world catches up.

## A New Type of Saw (?)

In Filer Price's account of a sawing contest, which appeared in last month's Crucible, mention was made of a new style of saw (?). It was a 9 -gauge, 50 -inch, 80-tooth band.

Did you ever see one? It is a good guess that you did not, for the oldest and most experienced saw-makers and saw-sellers connected with Disston's never did. No, they never saw a saw of such dimensions, for the simple reason that they are not made.
"Well, then, why did you mention such a saw in the Crucible?"

A perfectly legitimate question, friend. The "big boss" propounded the same question, and ditto, Filer Price.
(Continued on Page 7)

# THE VIRGINIA AND RAINY LAKE 1 

## Operates One of the Larges

VIRGINIA and Rainy Lake Company's mills and general offices are located at Virginia, in the Northeastern part of Minnesota. The company enjoys the distinction of operating one of the largest lumber plants in the world, and of having timber holdings in Northern Minnesota and Canada containing billions of feet of virgin cork white pine and Norway white pine.

The timber tracts are tributary to its saw mills, and contain sufficient timber to keep the mills busy for the next twenty years.

The plant consists of two saw mills, having a combined capacity of 875,000 feet of lumber a day, and a planing mill with a daily capacity of 700,000 feet; also lumber yards, dry sheds, machine shops, power houses, and numerous auxiliary buildings, covering an area of about one square mile.

The Large mill contains-
Five band saws
Four edgers
Two resaws
Two lath mills
The Smaller mill is equipped with-
Two band saws
One resaw
Two edgers
One lath mill

When operating at full capacity 1300 men are emSaw Mill Capacity Planing Mill Capac ployed at the plant. Logging is carried on the year round as many millions of feet of lumber are required to supply the great mills.

Fourteen locomotives are used in transporting the logs and lumber over many miles of railroad, in conjunction with modern facilities for landing logs at the mill direct from the saw.

During the winter months a great amount of timber is transported to the lakes over iced roads by horses and large tractors, thence towed by steam


The Virginia and Rainy Lake Co Minnesota and Canada, tributary billions of feet of virgin cork white operate their sawmills operate their sawnils

## JMPANY OF VIRGINIA, MINNESOTA

## Lumber Plants in the World

875,000 Feet Daily. and gasoline alliy, 700,000 Feet Daily. gators-during the open season - to the hoists, where they are loaded on cars for the mills.

When operating at full capacity during the peak of the winter season, 3000 men are employed in the logging.

The Company's facilities for rail and water shipment are unsurpassed, and their lumber finds ready sale in the principal marts of the country.

A lumber plant of the proportions of the one
pany's timber holdings in Northern to their large sawmills, containing pine and Norway pine, sufficient to $r$ the next twenty years.
pany, like all large industries, did not growover night, nor spring into existence by merechance. Its history from its inception to the present time would fill volumes.
The officers of the Company are-
Edward Hines
President
William O'Brien
Vice-President
H. C. Hornby

## Secretary

Load of lumber on way to lake

F. E. Weyerhaeuser, Treasurer
F. N. Taylor, Sales Manager
C. H. Rogers, General Superintendent

Thos. S. Whitten, General Manager
F. H. Gillmour, Woods Superintendent

The last three men are directly responsible for the actual production of the plant. Each one of them has had extensive experience in all branches of the lumber business.
owned and operated
by The Virginia and
Rainy Lake .Com-


The Parker-Young Company of Boston, has purchased 260 square miles of timberland in Calhoun County, Florida, for approximately $\$ 1,000,000$. Estimates place the timber at 300,000 ,000 feet.

During the calendar year of 1922 there passed through the Panama Canal, 2997 ships. The best previous year was 1921, with 2814 ships. The tolls collected in 1922 aggregated $\$ 12,573,407$.

The Ford Motor Company has purchased the timber holdings of the Stearns \& Culver Lumber Co. The plant has a cutting capacity of $25,000,000$ feet of lumber a year. The deal includes 30,000 acres of timber land and $15,000,000$ feet of manufacture lumber.

There is great scarcity of skilled labor in the Maine woods this winter, and unless woodsmen can be obtained the loss of spruce will be heavy, as 90 per cent of these trees are affected by the bud worm.

Work in Quebec lumber camps is normal compared with high record of 1920. It is estimated by the provincial government that between 20,000 and 30,000 lumberjacks are in the camps.

The U. S. Bureau of Fisheries urge anglers, sportsmen, et al. to take especial pains to prevent forest fires, as they have been responsible for wide-spread destruction of fish.

A large section of petrified wood of beautiful coloring, secured in the famous petrified forest of Arizona, is to be polished and then placed in Arizona's niche in the Washington monument.

The American Tree Association has for its objective for the year 1923, the planting of $1,000,000$ trees. Every American should be a member of the club.

General conditions in Australia continue to improve. Unemployment, unrest and strikes are steadily diminishing; bank deposits, exports and imports are increasing.

Rice has become a poor third in comparison to corn and wheat flour, in the diet of the Chinese of Antung Province and the surrounding country of Southern Manichura.

The Secretary of Labor has given permission to lumber companies in Maine to employ 2000 woodsmen from Canada and the Maritime Provinces for work in the woods.

This is station H. D. \& S. Inc. now signing off. If the listeners-in were interested in the news broadcast, kindly drop a line to Radio Desk, Crucible Department, Henry Disston \& Sons, Inc., Phila., U. S. A.

## CHARLES E. KUNTZ DIES

The above caption headed the following article in a recent issue of "Wood Turning."
"Regretfully, we announce the death of Charles E. Kuntz, vice-president and general manager of the South Bend Dowel Works. Death was caused by pneumonia following as a result of casualties sustained in a motor truck collision with a New York Central mail train.
"The death of Mr. Kuntz takes from the craft one of our young and progressive leaders, a fact evidenced by the rapid growth of the institution he directed.
"Mr. Kuntz was thirty-five years old, his birthplace being Lakeville, Indiana. He has been, however, a resident of South Bend for thirty-four years. Our sympathies go to his survivors."
The Crucible joins "Wood Turning" in extending sympathy to the survivors of Mr. Kuntz.

## Using Wood Waste to Halt Decay

When a commercial organization goes to the trouble of finding a use for bits of waste wood scarcely larger than


Box of Wooden Pegs
a man's finger, a hasty judgment might condemn the practice as "picayunish." Prejudice against such careful utilization, is, however, not always justified. The cutting of the boxful of wooden pegs shown in the photograph above, is
the result of an effort in wood saving entirely consistent with the diminishing supply and rising price of forest products.

Theremarkable thing about these pegs is the fact that they are to be used only to increase the usefulness of larger pieces of wood.

A manufacturing corporation, managing a forest to supply its wood needs, uses them to plug the holes left in ties after pulling the steel spikes, in cases where spikes must be pulled and redriven. As the plug keeps out the moisture and retards the progress of decay in the old spike hole, a longer period of service is secured from the tie after replacement, than would be possible were infection unhindered at this point.

The final operation, the cutting of the pegs shown here, reduces the percentage of waste to a minimum. - U. S. Forest Service, Madison, Wis.

## A New Type of Saw (?)

(Continued from Page 3)
There is only one explanation: the word band happened to slip into the copy which went to the printer; and then overlooked in the proof-reading.

No, it was not due to lack of familiarity with saw dimensions, or of the different work to which saws are adapted rather a case of lapus mentalis.

Froude says: "Instruction does not prevent waste of time or mistakes; and mistakes are often the best teachers of all." Granted. And while another sage has said: "Earth bears no balsams for mistakes," yet there is a bit of satisfaction in knowing that Crucible's articles are read and criticised - a fact which this mistake unmistakably revealed.


## NO, THEY DON'T BURN COAL

He: "I just read an account of two girls getting lost in the Alps in midwinter."
She: "Terrible! Were they frozen?"
He : "No, they warmed themselves on the mountain ranges."


#### Abstract

Always exercise a certain amount of care in sympathizing with a woman in tears. She may be having a time of her life.


## IMPOSSIBLE

"John, John," whispered Mrs. Congressman Blow Hard, "Wake up! I'm sure there are robbers in the house."
"Robbers in the house?" he muttered sleepily, "Absolutely preposterous! There may be robbers in the Senate, Mary, but not in the House. Absurd!'"-American Legion Weekly.

> Missionary (to cannibal) - What makes your chief so talkative today? Cannibal-Oh, he ate a couple of barbers this morning.

## SOUNDED LIKE HOME

Two young kindergarten teachers, intelligent and attractive, while riding downtown in a street car were engaged in an animated discussion. In the seat behind them sat a good-natured, fatherly-looking Irishman enjoying a nap. Finally one kindergartner inquired of the other:
"How many children have you?"
"Twenty-two," she replied. "And how many have you?"'
"Oh, I have only nineteen," replied the first.

At this point the Irishman, now wide awake with astonishment, leaned forward in his seat and, without any formality, inquired in a loud voice:
"What part of Ireland did youse come from?"

## STILL IN DOUBT

Tommy had been playing truant from school, and had spent a long, beautiful day fishing. On his way back he met one of his young cronies, who "ccosted him with the usual question, "Catch anything?"

Tommy, in all the consciousness of guilt, quickly responded:
"Ain't been home yet."

> —Exchange.

Lucile: "What is it that keeps the moon in place and prevents it from falling?"
"Buck": "I suppose it's the beams."
—Exchange.
GET ACQUAINTED, BOYS
Here's to the girl, the prettiest girl, The sweetest girl to me;
Her face is on the dollar
And her name is Liberty.
She will clothe you, she will feed you,
She will take you out of soak,
And with her picture in your pocket
You will never need be broke.
-Selected.
Sunday School Superintendent-"I am happy to see all these shining faces before me this morning." (Sudden application of thirty-seven powder puffs).-Sun Dodger.

## A FELINE BREAD CRUMBER

"'Mamma! mamma!" cried a six-yearold, rushing into the parlor, where his mother was entertaining some friends. "There's a mouse jumped into your bread pan!"

The good woman was much disturbed and frantically asked: "Did you take him out "
"No'm; I threw the cat in, an' she's diggin' after him to beat the band!"
-Exchange.

These are all the jokes we know, but there Armour.
38.105

## The

 DISSTON CRUCIBLE
## BetterWork



TO THE man who fells the forest siants, better work means easier, quicker sawing. The name Disston on his saw is his assurance that the fine, serviceable steel, the hish standards of workmanship and finish and lasting service that have characterized all Disston products for more than eighty years are helping him to do better work.

Remember-Disston Quality is always in demand and, as it takes time to produce such quality, it is well to anticipate your requirements and order in advance of your needs.

HENRY DISSTON $\mathcal{E}$ SONS, Inc.
PHILADELPHIA, U.S. A.
Cincinnati Chicaso Seattle, Wash. Portland, Ore.
New York San Francisco Memphis. Tenn.
Bansor, Me. Boston, Mass. New Orleans
Canadian Works: Toronto. Canada Branch: Vancouver, B. C.


SAWS TOOLS FILES

# DISSTON CRUCIBLE 

A MAGAZINE FOR MILLMEN
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# LONGFELLOW'S "EBONY THRONE" Made of Wood From the Famous "Spreading Chestnut Tree" 

(1)O you remember, when a lad, back in the little school house, how on Friday afternoons teacher would have us pack away our books, preparatory to turning the school into a literary society (?), when we would be called on to read or recite from our favorite authors? Remember how Dick Williams would walk to the platform with that familiar grin on his face, tug at his blouse, straighten his necktie, clear his throat, and then launch out in his high falsetto voice:
"Under a spreading chestnut tree The village smithy stands;
The smith, a mighty man is he, With large and sinewy hands; And the muscles of his brawny arms Are strong as iron bands.

*     *         *             *                 *                     * 

"Week in, week out, from morn till night,
You can hear his bellows blow; You can hear him swing his heavy sledge,
With measured beat and slow?"
And when he came to the last stanza, almost winded, he would modulate his voice, attempt a gesture, and earnestly conclude:
"Thus at the flaming forge of life Our fortunes must be wrought Thus on its sounding anvil shaped Each burning deed and thought!"
Yea, verily, them was the days! And how we did vent our elocutionary aspirations on "The Village Blacksmith."

But honest, fellows, that little poem has had, since boyhood, sort of a grip on us, hasn't it?

The other day one of Longfellow's devotees sent us the following bit of history associated with the poem. You may also care to refresh your memory with it. So we give it verbatim:
"In the Longfellow home at Cambridge, Mass., is one of the most historical pieces of furniture in the United States. On his 72nd birthday the children of Cambridge presented the poet with an arm chair made from the


Longfellow and his "Ebony Throne"

# "JAKE" SMITH, ONE OF MICHIGAN'S BEST CROSS-CUT SAW FILERS 

"Swears by Disston Saws"

SWEARS by Disston saws?" No, we are not, in this quotation, exposing one of "Jake"Smith's failings. It is not the policy of the Crucible to treat its friends so discourteously. Neither is it Crucible's policy to sanction swearing. So allow us to explain. When a man swears by Disston saws it is not profanity, it is profundity. It is not a vice, it is a virtue. Suear, in this instance, is used colloquially, and means no more nor less than: "has implicit confidence in"-the efficiency of Disston saws.

And it is mighty significant when "Jake" Smith swears by Disston saws, because "Jake" knows saws from A to izzard, and there is not a man in the whole state of Michigan who can put a saw in better condition than can he.

A Disston cross-cut saw to him is not a long narrow strip of steel with nicks alcng one edge; it is a tool-a correctly tempered, finely finished, perfectly ground, symmetrical tool-made to give service. A tool which receives from Mr. Smith more care and better treatment than some persons give their faithful animals, because his long practical experiencehas taught him that proper care is essential to best service, even in the best of tools.

On different occasions Mr. Smith has filed Disston saws which cut, with one filing, from six to seven thousand feet


Jake Smith Filing a Disston.
of frozen maple a day, and came in at night in good shape.

About the time the lumber industry was at its zenith in the middle west, $1869, \mathrm{Mr}$. Smith appeared on the scene, a lumberman in embryo. At eighteen years of age he made his debut as filer for the Mancelona Handle Co., and later took charge of their woods operations. He continued with this firm until their timber became exhausted.

Fulty \& Grant, of Cheboygan, Michigan, then made a successful bid for his services, and retained him until they ceased operations.

Boyne City Lumber Co., of Boyne City, Michigan, was the next successive step in Mr. Smith's mill experience. He remained with this company for six years, with the exception of two summers, when he worked for the Michigan Forestry Department, as fire patrolman.

Then in turn he filed for Richardson \& Avery, of Alpena, Mich. The Lake Independence Lumber Co., of Big Bay, Michigan, and Cobbs and Mitchell, Cadillac, Michigan, remaining with the last mentioned firm until last fall.

Mr. Smith then took a position with his brother, Mr. David Smith, who is superintendent of the Melstrand Branch of the Charcoal Iron Company.
May Mr. Smith see the day when his year old son will file a saw as finely as his Dad.

## FROM THE LOOKOUT TOWER

## Are You an "I Wish I Were?"

One of the best pals that ever walked is Fred Lally. I never worked with a squarer or a finer man.

Fred has only one fault-but that is a mighty bad one. He is an "I wish I were!'

Because of that, Fred doesn't get along very well. He is almost fifty years old now and he is still a "hand" just as he was twenty years ago; not any better than he was then. He lives in that same old house back of the mill and each year grumbles a little more and grows a little more careless.

Fred complains quite a lot of late because he doesn't get on as well as some of the rest of us; yesterday, he talked about getting a new job "where a fellow has a chance."

But a different job will not do him any good. If he can't get along now; if he must watch men who started under him climb up and leave him in the same old job, he had better stay where he is. He is at least holding his joband he might not do that in a new place.

No outsider can do anything for Fred Lally. No one can help him but himself.

Because Fred is an "I wish I were."
In all the twenty-odd years I have known him, he has continually "wished" for something or other.

## LOOKING BETTER

## By WALT MASON


#### Abstract

All around me men are building bungalows in which to dwell, and the painters brisk are gilding, graining, staining, wildly well; and I see the glaziers glazing, and behold the braziers brazing, and the carpenters are raising still more buildings, with a yell. Everywhere I hear the hammer, everywhere I hear the saw, and the workmen's joyous clamor fills with happiness my craw; for the dead old days are ended, when my ample beard I rended, while I muttered "Pish!" and "Pshaw!" Oh, the dead old days are finished-may they never amble back!-when our wads were so diminished that we couldn't build a shack; and the landlords, profiteering, came like shearers to the shearing, truculent and domineering, to remove our little stack. Now we build our little shanties, build our near three-cornered sheds, and our grandmas and our anties will have roofs above their heads; and they'll plant sweet peas and lilies, and materials for chilies, and the renthogs have the willies as they curl up in their beds. Oh, the better days are coming when the building booms begin, and the plumbers they are plumbing, and the tinners gayly tin; every gent will have his cottage where the files succumb to swattage, where he'll eat his humble pottage-and the renthog's growing thin.-Western Lumberman.


One day he'd wish he were John D. Then he'd wish that he had gone into politics instead of starting to work here at the plant. He is sure he would be "boss" instead of old Tom Jones, if he had.

If he reads that President Harding spoke before a great crowd; that Edison has made known another of his inventions; about Ford's great automobile plant in Detroit -Fred always says the same thing:
"Gosh! I wish I were in his place."
And that's all! He just "wishes." He never does anything about it.

It is useless to wish for anything -if one does nothing more than wish.

Harding, Edison, Fordprobably all started out by wishing for the things they now have. But they not only wished -they worked.

The man who will do thatwho will pick out the thing he wants; who will make his wish and then work hard enough and long enough to make that wish come true-there is nothing that such a man may not do or be!

But the man who is only an "I wish I were"-who won't work to make his wishes come true-never gets far. There is nothing for him but more wishing!

# THE PACIFIC LUMBER COM 

## Produces $\mathbf{1 5 0 , 0 0 0 , 0 0 0}$ Feet of California Redwood Annual Equipped Redwoo

T1WO hundred and fifty miles north of San Francisco on the main line of the Northwestern Pacific Railroad, and in the heart of the finest stand of Redwoods in Humboldt County, is located the town of Scotia-known as "the home of California Redwood." This town was built by The Pacific Lumber Company, and practically all of its 3,000 inhabitants are engaged in the Company's operations. A model lumbering community it is too, with well laid-out streets containing rows of attractive cottage homes, a graded school, an excellent hotel, a national bank, an up-to-date theatre, club house, and several first-class mercantile establishments.

Municipal affairs at Scotia, as well as all lumbering and mill operations, are under the general direction of Mr . H. E. Crawford, Vice-President of the Company. Mr. E. E. Yoder is resident superintendent in charge of the various divisions of the plant.

The several camps, operated under the direction of Mr. R. C. Richardson, are also examples of the latest development in lumbering and combine effi-


View of the Planing Mill All Machinery Electrically Driven
ciency and comfort for their workers to a high degree. Sleeping quarters are equipped with running water, shower baths and complete sanitary arrangements, and meals served at the cook house are of such quality and variety as to tempt the most fastidious appetite.
A large part of the area of Scotia is occupied by the company's plant, the planing mills alone covering five acres. In these mills some $150,000,000$ feet of Redwood are produced every year, or about one-quarter of the total Redwood cut. Throughout every oper-ation-logging, sawing, sorting, remanufacturing, drying, piling, and shipping, the most modern methods and equipment are employed.

Because of the immense size of the Redwood trees (they range


The Overhead in height from 150 to 350 feet and from 3 to 18 feet in diameter) the most powerful machinery


Panoramic View of Scotia-The

## ?ANY, SCOTIA, CALIFORNIA

## 7. Its Plant at Scotia is the Largest and Most Completely Mill in the World

is required to transport the giant logs from the forests to the mills. Most of the logging is done in mountainous districts which necessitates the installation of temporary railroad facilities and the employment of special locomotives and rolling equipment. Redwood Butt logs are usually cut in 16 -foot lengths, averaging 1,000 board feet of lumber and weighing from four to five tons. A

lectric Cranes


Hundreds of Feet of Lumber in Single Wide Planks of Clear Redwood
four headsaws and horizontal resaw. Both mills have complete remanufacturing facilities and their combined output is approximately 500,000 feet per day of nine hours. Each headsaw is augmented with edgers and trimmers. The sorting chains at each mill aggregate about 2,000 feet in length and accommodate some 900 units of stock.

The planing mill and factory is the largest of its kind on the Pacific Coast, being 270 feet wide by 660 feet long, and houses departments devoted to the production of millwork, cigar and candy box lumber, casket, incubator and ice cream cabinet stock, turned work, paving blocks, storage battery separators, pattern lumber, window and door frames, etc. The latest types of planers, matchers, moulders, resaws, cutoff saws, trim saws, rip saws and tenoner machines are used, as well as several wood-weaving machines. Altogether between 90 and 100 machines are in constant operation.

Drying being one of the most important processes in the production (Continued on Page 15) stant operation: mill " A " having three headsaws and gangsaw, and mill " $B$ "


Home of California Redwood


There is enough standing timber in the Northwest from which can be cut sufficient lumber to rebuild thrice over all the wooden frame structures in the United States.

After contributing dozens of almost priceless specimens of prehistoric animals, the famous dinosaur quarry near Jensen, Utah, is to be abandoned, it has been announced by officials of the Carnegie Institute.

Some mathematician has figured that if the $\$ 15,000,000$ which is the estimated value of the treasures found in Tut-ankh-amen's tomb, had been put out at 6 per cent compound interest, it would now be worth a sum with more than eighty ciphers.

In Washington, Oregon and Idaho is grown half of the country's commercial apple crop which is worth $\$ 50,000,000$ a year and with the other fruit yields constitutes a $\$ 100,-$ 000,000 industry.

## $r$

In the manufacture of the innocent little telephone which stands on the desk, it is necessary to bring to the factories articles from practically every part of the globe.

Estimates made following careful surveys in New England in those areas where intensive reforestation has been practiced for some years show that the monetary returns from timber-growing, calculated not upon possible future prices nor even upon the very highest prices now quoted, may safely be put at 5 per cent, compounded annually.

Four hundred Nebraska farmers are attending school at the College of Agriculture operated in connection with the State University. They are taking winter short courses so arranged as to be finished in a few weeks, and yet prove of great value. Farming and farm mechanics are taught.

A dog, recently exiled from its home in Denver by sale to a person in St. Joseph, Missouri, responded to thecall of its old home by walking 700 miles from its new to its old home, unattended. Verily, there is no place-like home.
"Accidents by falling trees are preventable" says the Department of Labor and Industries. Their elimination would reduce accident insurance 11 per cent.

This is station H. D. \& S. Inc. now signing off. If the listeners-in were interested in the news broadcast, kindly drop a line to Radio Desk Crucible Department, Henry Disston \& Sons. Inc.. Phila., U. S. A.

## Pacific Lumber Company, Scotia, California

(Continued from Page 13)
of Redwood, The Pacific Lumber Company has for years given special attention to this operation. In addition to the great drying yards where 70 to 80 million feet of Redwood are piled for air drying, twenty-eight patented Leaver drying kilns are also maintained. These kilns were designed and patented at Scotia by Mr. James M. Leaver, an officer of the Company, and they are an exclusive feature with The Pacific Lumber Company. They have a total monthly capacity of over $5,000,000$ feet of lumber.

The general sales of the Company are in charge of Mr. Junius H. Browne, Vice-President of The Pacific Lumber Company and President of The Pacific Lumber Company of Illinois, a subsidiary organization handling all mid-western and eastern sales. Assisting Mr. Browne are Mr. P. C. McNevin, general Sales Manager, Mr. R. F. Hamilton, Western Sales Manager, and Mr. Frank R. Adams, Eastern Sales Manager. Offices are maintained in the Robert Dollar Building, 311 California Street, San Francisco, the Central Building, Sixth \& Main Streets, Los Angeles, The McCormick Building, 332 South Michigan Avenue, Chicago, and the 40 Rector Street Building at 40 Rector Street, New York City. Warehouses or quick shipment depots are located in Chicago, and Newark, New Jersey.

## Longfellow's "Ebony Throne" <br> (Continued from First Page)

original "spreading chestnut tree," immortalized in Longfellow's wellknown poem, "The Village Blacksmith." An old blacksmith's shop stood near the Longfellow home, and before it stood a large, wide spreading chestnut tree. This tree stood on a street which the city decided to widen, making it necessary to cut it down. Mr. Longfellow and others personally endeavored to have the tree spared, but all to no avail. Subsequently 1,000 children of Cambridge contributed ten cents each for the purpose of having an arm chair made from the wood of this tree. From the fact that the wood was ebonized, Mr. Longfellow always called the chair his "ebony throne."

In a poem on this tree he says, in one of the verses:
"Am I a King that I should call my own This splendid ebony throne?
Or by what reason, or what right divine Can 1 proclaim it mine?

The Pacific Lumber Company is one of the oldest Redwood organizations in the country, having been organized in February of 1869. The present officers are:-
Mr. John H. Emmert, President Mr. William H. Murphy, Vice-President Mr. Fred T. Murphy, Vice-President Mr. Junius H. Browne, Vice-President Mr. H. E. Crawford, Vice-President Mr. Donald Macdonald, Treasurer Mr. W. M. Nelson, Assistant Secretary

## DISSTON IMPERIAL CROSS-CUT SAW FILE



The Imperial Cross-cut Saw File is made especially for filing cross-cut saws. It is known among filers everywhere for its long life and for its fast, clean cutting. It is manufactured from the famous Disston-made steel, has sharp, fast-cutting teeth, and is carefully hardened by Disston methods.

The "Imperial" is parallel in width and thickness, and is made in five sizes: $6,7,8,9$, and 10 inches.


NO CHANCE
"What were your father's last words?"
"Father had no last words. Mother was with him to the end."-Wag Jag.

## A GREAT HIT MISSED

Stage Manager-"All ready, run up the curtain."

Stage Hand-"Say, what do you think I am, a squirrel?"-Froth.

## SAFETY FIRST

One should never leave a clock at the head of the stairs, because it sometimes runs down.

## A HINT TO HENS

An Ottawa hen laid an egg daily for 107 days. There's a saying in every hen-house that an egg a day keeps the hatchet away.

## SINGLE HOL-E-NESS

Tim-"How are you getting along at home while your wife's away?"
Jim-"Fine. I've reached the height of efficiency. I can put on my socks now from either end."
-American Mutual Magazine.

## SOME DAISY!

He was an earnest minister, who one Sunday in the course of a sermon on the significance of little things, said: "The hand which made the mighty heavens made a grain of sand; which made the lofty mountains made a drop of water; which made you made the grass of the field; which made me made a daisy."

## CARFARE

For hours they had been together on her front porch. The moon cast its tender gleam down on the young and handsome couple who sat strangely far apart. He sighed. She sighed, Finally: "I wish I had money, dear," he said. "I'd travel."

Impulsively, she slipped her hand into his; then, rising swiftly, she sped in the house.

Aghast, he looked at his hand. In his palm lay a dime.


Yow! That's a corker, spin another one.

START A DAIRY
The following Want Ad appeared in the classified columns of the Journal of A. M. A., recently:

Wanted-Married man to milk and drive Ford. Write F. J. B., 721.

## PROBABLY

She: What makes the leaves turn red in the fall
He: They are blushing to think how green they have been all summer.Our Boys

## A SNAPPY COMEBACK

The secretary had written to a brother that he had advanced the last payment for him and unless he came across with some coin, he would be suspended. The secretary received the following reply:

Deer Seccyterry-I got your leter about what I owe you. Now be pachunt. I aint forget you. Plese wate. When sum fools pay me I pay you. If this wuz judgment day and you wuz no more prepared to meet your Maker as I am to meet your account you sure would have to go to h---. Trusting you will do this, I am."

 MILL SAWS

Disston band saws are made from Disston-made steel - the very best material that can be produced for this purpose. A special mix of this famous steel is the foundation of every Disston band saw.
Uniformity is the keynote of Disston band saws. They are uniform inquality, material and workmanship. They are uniform as to gauge. You always can uniform as to gauge. You always can
count upon this same uniform quality in Disston band saws.
The temper is secured by special tempering devices of Disston development. This exclusive process insures an even temper throughout the entire saw.
Disston band saws HOLD their tension because of the special Disston temper and the quality of the famous Disston-made steel.
Teeth of Disston band saws do not CRUMBLE. Disston-made steel and temper give proper edge and swage holding quality.
Disston band saws are a good investment because they last longer. They have all the
points you look for in a good band saw. w

# DISSTON <br> A MAGAZINE FOR MILLMEN 

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## "VOICES OF SPRING"

SPRING" has been the subject of many literary gems-both prose and poetry-and of musical compositions of rarest merit.
The return of spring, with its verifying sunshine seems to have an inspirational effect on author and composer conducive to their best efforts.

"Voices of Spring" by Mary Baker Eddy, in her Miscellaneous Writings, is a gem of lustrous beauty. It must be read in its entirety to be thoroughly appreciated. Lack of space permits printing excerpts only from it :
**** "In spring, Nature like a thrifty housewife sets the earth in order; and between taking up the white carpets and putting down the green ones, her
various apartments are dismally dirty.
"Spring is my sweetheart, whose voices are sad or glad, even as the heart may be; restoring in memory the sweet rythm of unforgotten harmonies, or touching tenderly its tearful tones.
"Spring passes over mountain and meadow, waking up the world; weaving the wavy grass, nursing the timid spray, stirring the soft breeze; rippling all nature in ceaseless flow, with 'breath all odor and cheek all bloom.' Whatever else droops, Spring is gay: her little feet trip lightly on, turning up the daisies, paddling the water-cresses, rocking

"The alders bend over the streams to shake out their tresses in the water-mirrors." and "ye ole swimmin' hole"' lures the youth to its sylvan retreat.
the oriole's cradle; challenging the sedentary shadows to activity, and the (Continued on Page 23)

[^1]

Measure Your Wits with Those of Your Fellows A Prize for the Winners

Below, we have arranged an interesting little contest for our friends of the lumber camp, mills, schools, etc. The object is to test your knowledge of saw names.

When you come home in the evening, and are all "set" with slippers and pipe, take just a few minutes and supply the name of a saw (in the blank space) most suggestive of the various occupations listed below.

A change of thought will prove refreshing, and you will become quite interested in rummaging your gray matter for just the right saw to fill the bill.

For an example: What saw is most suggestive of the mariner? Answer: The Compass Saw.

As you know, there are many different kinds of saws used today, and, a person must be mighty well posted in "saw-ology" to correctly name all of them.

## THE LIST:

WE SUGGEST- NAME OF SAW
NAME OF SAW
For the hunter.
For the bishop
For the liveryman
For the broker
For the mariner.
For the horseman
For the baby
For the printer
For the musician
boxer
For the dentist
For the gambler
For the seamstress . . . . . . . . . . . . . . For the fisherman
For the penman . . . . . . . . . . . . . . . . For the railroadman
For the editor
For the gangster
For the gossip.
For the weaver
For the athlete.
For the blind
Send your answer to the Crucible Editor, Henry Disston \& Sons, Inc., Tacony, Philadelphia. He will be judge of the contest, and will send a useful and attractive leather-covered memorandum book to each person who sends in a correct list. If no correct lists are received, the five persons sending in the most nearly correct lists will be given prizes. The contest will close May 15, 1923, and the names of winners published in the June issue of the Crucible.

Now let's go: We hope all contestants win. All answers received by the Crucible Editor will be acknowledged and a list of correct names of saws will be sent to all contestants.


## FROM THE LOOKOUT TOWER

Dictionaries tell us that the word "quality" signifies "peculiar power or property; disposition; rank; superior birth."

But we who deal in commodities think of a thing of "quality" as something of established value; something that can be depended upon at all times; something in which we can trade with profit to ourselves and satisfaction to all who are interested.

Therefore, it is essential to all of us that the things we wish to sell be known as "quality" products.

And, as a result, there is a constant battle of words to establish this or that commodity in the minds of those interested as a thing of "quality."

But words, however clever, cannot put "quality" into a product; they can only describe what is already there. And if they do not describe accurately the difference is always discovered.

Experienced men take little interest in the word battle over "quality." They know. Long ago, they learned that a manufacturer either makes "quality" products or he does not. So, for them, the problem is solved.

They have learned that only the "quality", products endure. Many commodities climb swiftly to popular-ity-and fall. It is only the commodities of "quality" that go steadily on, generation after generation.

It is for this reason that Henry Disston \& Sons, Inc., refer to their 83 years of leadership in the industry. Disston products have stood the test of time. Eighty-three years of service have proved Disston Saws, Tools, and Files worthy of a place in the class of "quality" products-"as something of established value; something that can be depended upon at all times; something in which we can trade with profit to ourselves and satisfaction to all who are interested."

A friend of ours, Harry Varley, who is Vice-President of an advertising agency in New York, recently sent us a copy of a little pamphlet he had written. It contains so much to think
about that we want to pass it on. Varley calls his pamphlet"The Branch That Thought It Was A Tree" and here is what he says about it:-
"It had every right to be proud of itself-this grafted branch. In the blooming season, its flowers were large and the creamy petals red on the edges while the other blossoms on the tree were small and scraggly and dirtywhite.
"When Autumn changed the flowers to fruit, the apples on this branch were big, deep-red, with hearts as white as snow. And the branch, seeing this, was swollen with pride.
""Why should I remain a part of this poor tree. I give more fruit than the rest of the branches combined. I will be a tree unto myself that men may know me and give me credit for my fruits.'
"The next time a strong wind blew, the branch strained and pulled and twisted and finally tore itself from the tree. The tree bled at the wound for a little time, but the gardener came along and grafted another branch in the place.
"But the branch that tore itself away died very quickly.
"It did not realize that the sap-the life-blood that gave it health and strength to produce-came from the roots of the tree. The branch could not see that because the tree had other branches it was able to drink in more sunshine and rain-that all the branches drew life from the soil and air and gave it gladly that the one branch could flourish and produce much fruit.
"So the grafted branch, that thought it could be a tree, died. The tree lived on."

There are men who draw the very life-blood of their inspiration from the organization of which they are a part. They produce great works and are blind to the sources of their power.
(Continued on Page 23)

## CROSS-CUT SAW TEETH

## Reason for Numerous Shapes. The Raker Tooth Favorite for General Use.



ROBABLY no other type of saw-hand, band, drag, circular, etc. - is made with so many different kinds of teeth, as is the cross-cut saw. Yet from the plain or tenon tooth to the latest and best developed tooth for general purposesthe raker-each one of the various kinds
and die-cutting machinery, the " V " shaped teeth (modernly known as plain or tenon teeth) were made, well-formed and clearly cut. This style tooth was used in all kinds and conditions of wood and oftimes at a waste of time and energy which subsequent experience has proved could have been eliminated by using a differently formed tooth.

But in those days the axe was considered the tool for felling trees and reducing them to logs of required lengths. So the cross-cut saw teeth received little attention, especially as to improving their efficiency.


Roman saw blade made of iron. Date, 250 A. D.
or shapes of teeth meets a specific requirement.

The distinguishing feature of crosscut saw teeth, however, is not the numerous kinds, but their formation for cutting on the back and forward stroke.

The cross-cut saw, as used today, is of comparatively modern construction. The earliest cross-cut saws were made

In the course of time, however, the progressive spirit which was leavening all branches of industry, especially in the United States of America, reached the great lumber camps and the lumberman began to look about for tools which would facilitate his work.

Slowly but surely the merits of the cross-cut saw gained recognition. The

of iron or untempered steel, and their teeth were crudely " V " shaped.

With the advent of tempered steel
contention that it could be made practical, and especially economical, could not be refuted, but one quality
must needs be developed before it could hope to supplant the king of forest tools-its cutting capacity must exceed the cutting capacity of the axe, plus the dexterity of the axeman.

Hence we have today the numerous shapes of teeth, and varying degrees of swaging and setting; hence the plain or tenon tooth; the two, four, and six cutter with their rakers; the deep and


Then came the demand of the crosscut saw advocates for a more efficient saw. The saw makers for obvious reasons, anxious to satisfy this demand, applied their scientific knowledge and untiring efforts to this end, and the
shallow gullets; the wide and narrow gullet, as well as the perforations, bevels, curves, angles, etc., all of which are integral units in the complete whole of cross-cut saw teeth efficiency.

Disston manufactures a complete

result was an evolution in the shape of cross-cut saw teeth.

Experiments revealed the fact that certain shapes of teeth obtained best results in certain kinds of wood. Also that certain changes of shape in these
line of cross-cut saws. Among this line of saws can be found teeth adapted to all kinds and conditions of woods, from the famous redwoods of the Pacific coast to the jarrah of Australia; from the pines of the Gulf state to the


Great American, No. 1. Trademark Registered U. S. Pat. Off.
teeth were necessary for best results, when sawing the very same wood when green, seasoned, frozen, and when sawing with or across the grain, or diagonally; also that certain arrangement of teeth increased the cutting speed.
beech of Scandinavia. Teeth for woods in tropical Africa as well as for woods in frigid Siberia.

Illustrations on this page show a few of the many different patterns of crosscut saw teeth made by Disston.


Tenon, No. 1


## MR. A. M. GHRISTIANSEN

Filer in the U. S. Navy Yard, Puget Sound, Washington

MR. A. M. Christiansen, who resides at No. 522 Washington St., Charleston, Washington, and who for the past five years has been a saw filer at the U.S. Navy Yards, Puget Sound, Washington, has been in the lumber and mill game for about seventeen years.

He has had wide and varied experiences, and to follow them in detail would make very interesting reading, but our limited space will not permit this, so we must be content with a brief outline.

Mr. Christiansen made his debut in the lumber industry during the year 1906, as a lumber-grader for the Weed Lumber Co., of Weed, California.

His first filing experience was with the well-known Grays Harbor Commercial Co., at Cosmopolis, Washington.

Next he filed for the National Lumber and Box Company, of Hoquiam, Washington. He was with this firm a year when he accepted a position with the Hoquiam Lumber and Shingle Company, of Hoquiam, Washington.

At the last mentioned plant Mr . Christiansen worked under Mr. William Rensil, who was reputed to be one of the best filers of the Northwest; and who really initiated Mr. Christiansen into the mysteries of saw filing.

A strike in the spring of 1912 closed all of the mills in the Hoquiam Section, and Mr. Christiansen secured a job
with the Hanselbury Lumber Co., of Vancouver, B. C.

Then came the "call of the wild" from the mountain regions of British Columbia and he responded by accepting a position with the Dominion Lumber Co.

In the following order, Mr. Christiansen worked for-
The Canadian Pacific Lumber Co., on the Lulu Islands.
The Victoria Lumber Co., on the Vancouver Islands, B. C.
The Atlas Lumber Co., McMurray, Washington.
The United States Navy Yard, Puget Sound, Washington.
He has held down the last mentioned position for the past five years, where he has had ample opportunity to demonstrate his skill on band, circular and cross-cut saws.

Mr. Christiansen writes: "I have changed jobs many times, done a lot of traveling, and have had wide experience in the upkeep of saws, but I would advise any young man in the filing game to stick to his job, because the saving account does not grow when one jumps from one job to another."

Undoubtedly Mr. Christiansen is well-qualified for his present position, and his five years continuous service in the navy yard is evidence that he knows a good job when he has one. We wish him success.

## "Voices of Spring"

(Continued from First Page) y streams to race for the sea. Her dainty fingers put the fur cap on pussy-willow, paint in pink the petals of arbutus, and sweep in soft strains her Orphean lyre. 'The voice of the turtle is heard in our land.' The snow-bird that tarried through the storm, now chirps to the breeze: the cuckoo sounds her invisible lute, calling the feathered tribe back to their summer homes. Old robin, though stricken to the heart with winter's snow, prophesies of fair earth and sunny skies. The brooklet sings melting murmurs to merry meadows: the leaves clap their hands, and the winds make melody through dark pine groves. **** "The alders bend over the streams to shake out their tresses in the water-mirrors; let mortals bow before the Creator, and, looking through Love's transparency, behold man in God's own image and likeness, arranging in the beauty of holiness each budding thought."

## From the Lookout Tower

(Continued from Page 19)
They know that what they produce is better than is done by the man at the next desk or the next benchbetter, perhaps, than any man in the whole organization can make with his hands and brains.
Happy is the man who can see in the results of his efforts more than an isolated, personal achievement; who can view the organization, of which he is a part, as a whole; who can see down to the roots of it and know that from these he draws the strength and ability to achieve.

He will not be torn away by the first gust of passion or pride.

He will hold fast to the tree. He will become as much an integral part of the tree as any branch of it, and know that the fruits of his labors are the fruits of the tree-that every leaf on every branch, every root, be it as fine as a hair, helped him to bear the fruit.

## Peculiar Band Saw Experience

caught in some unaccountable way and stripped one end of it about half its width. Seven feet of the stripped end of the saw was forced through the log making a clear cut, as shown in the illustration. This is another of the many remarkable demonstrations of the toughness of Disstonmade steel.

Recently the Palmer-Parker Company of Charleston,



Nature cannot jump into Summer without a Spring nor can it jump from Summer into Winter without a Fall.

## ONE MEAL SAVED

Tramp-"Your dog just bit a piece of flesh out of my leg, mum."
Lady-"Glad you mentioned it, I was just going to feed him."

## BUILT IN THE HUNGRY DAZE

Co-ed: "What makes the tower of Pisa lean?"
Ed: "It was built during a famine." - Yale Record.

## SUCH IS MAN

When he is born, his mother gets the attention; at his marriage, the bride gets it; at his funeral, the widow gets it.

## PRISONER NOT INCLUDED

"The next person who interrupts the proceedings will be sent home," said the judge.
"Hurray!" said the prisoner.

## HE KNOWS THE ODOR

Pater-"Mary, who is that in there with you?"

Daughter-"It's just John, papa."
Pater-"Well, Just John or Dutiful David, that's one of my cigars I smell."

The young couple were making their first long motor trip. They had blown out two tires, ruined their clothes in a sudden rainstorm, paid $\$ 10$ to get pulled out of the mud and then had lost their way. The husband got out with a flash light to inspect a signboard.
"Are we on the right road, dear?" called his wife.
"We sure are," he replied grimly, "but we didn't know it."

The sign read: "To the Poorhouse."

## AN EARLY START

Olga Rosenhagen: "Do you understand music, Mrs. Baxter?".

Mrs. Baxter: "I should say that I did! Why, I could play on the linoleum when I was only six months old."

## SHORT ON ORTHOGRAPHY

Teacher: "Robert, in your composition on George Washington you say he cut down a cherry-tree with a saw. Don't you know he chopped it down with a hatchet?"

Robert: 'Yes'm; but I didn't know how to spell hatchet."

DID YOU?
A bookseller sent a bill to a certain customer for a book. The customer replied:
"I did not order the book.
"If I did, you didn't send it.
"If you sent it, I did not receive it.
"If I did, I paid for it.
"If I didn't, I won't."

## CHECKING UP

One morning a negro sauntered into the office of a white friend. "Good mawnin', Mr. Withrow. Kin I use yo' 'phone a minute?' he asked.
"Why certainly, Sam."
Sam called his number, and after a few minutes' wait said: "Is this Mrs. Whiteside? Well, I seen in de papeh where you-all wanted a good culled man. Is you still wantin' one? Then the man youse got is puffectly satisfactory, and you doesn't contemplate makin' no change soon? All right, ma'am. Good-bye."

Mr. Withrow called to Sam as he left the 'phone. "Now, that's too bad, Sam, that the place is filled."
"Oh, dat's all right, Mr. Withrow. Ise de nigger whats got de job, but Ise jest wantin' to check up."-Judge.


MANUFACTURERS have found that Disston Saws can be used profitably for cutting all of the following unusual materials:

Fibre
Bakelite
Rubber (hard) $\because \quad$ (soft)
". (sponge)

- (canvas lined)

Glass
Burlap
Magnesia
Asbestos
lumber
Transito board
Ebony asbestos
Ammonia Blocks
Paper
Glassine

- Fiberized
. Cores
". Tubes
" Rolls
Ivory
Pearl
Shells
Cork
Cork composition
Button material
Celluloid
Plush
Velvet
Tapestries
Slate
Stone
Granite
Marble
Sand stone
Shale
Lime

Soapstone
Leather
Chamois
Bone (hard)
(soft)
Linoleum
Mortor
Plaster
Macaroni
Talc
Horn
Amber
Sugar
Straw
Alfalfa
Straw board sheets
Cloth
Mica
Meat-Fish
Bread
Broom corn
Micarta
Bagasse Board
Felt
Crayon
Coal
Cotton seed cakes
Maple sugar blocks
Hair brushes
Starch
Chalk
Fodder
Ice
Jute hemp
Sugar beets
Soap

It has often been said that there are Disston Saws made for every purpose; the list above is evidence that this statement is a fact.

Whatever your cutting problems, it will pay you to investigate the possibilities of cutting down your production costs by the use of Disston Saws.

Write to the main office or to any of the branches listed on the back cover for further information.

# DISSTON CRUCIBLE <br> A MAGAZINE FOR MILLMEN <br> Copyright 1923. Henry Disston \& Sons, Inc., Philadelphia, U.S. A. All rights reserved. 

## IRON WEDGE USED BY LINCOLN

(1)N the summer of 1830 , Abraham Lincoln left home and went to Illinois where he hired out on his own account, wherever he could get a job in the new country into which he had gone. In that region of big farms and no fences Lincoln was needed. His stalwart arm and well-swung axe came well into play
those days. It is an iron wedge used by Abraham Lincoln for splitting wood and rails. On the surface of this wedge are the initials "A. L." cut by Lincoln himself.

This interesting personal relic of Lincoln was presented to the Smithsonian Institution by Henry W. Allen of California, through Representative


Iron Wedge used by Lincoln in which he cut his initials
in cutting up logs for fences. He was called in that country a "rail-splitter."

One of the first things he did when he struck out for himself was to split four hundred rails for every yard of "blue jeans" necessary to make him a pair of trousers.

In the U. S. National Museum at Washington is an interesting relic of


Abe Lincoln, the Rail Splitter, in action

John A. Elston, of California, a regent of the Institution.

The wedge was found in 1885 while some repairs were being made on a brick house near New Salem, Menard County, Illinois, formerly owned and occupied by Mentor Graham, who was Lincoln's companion in surveying. In presenting the relic to the Institution, Mr. Allen included with it a number of papers of authentication, among them affidavits by Joseph Arnold and John Arnold, verifying the finding of the wedge in the Graham house, and affidavits by Lizzie H. Bell and John Q. Spears as to the positive identification of the object as the one known by them to have belonged to Lincoln.

Some interesting facts regarding the initials cut in the surface of the wedge (Continued on Page 31)

## U. S. SELLS INDIAN-OWNED•TIMBER

SOME of the largest timber sales ever made by the United States government have been Indian reservation timber. Five sales have been of approximately $500,000,000$ feet each, and a dozen others have exceeded $100,000,000$ feet each.

Large units of yellow pine have been sold on the Klamath reservation at $\$ 5.50$ a thousand feet, and on the Flathead reservation in Montana at $\$ 6.50$ a thousand. White and Norway pine of an inferior quality on the Nett Lake reservation in Minnesota have sold at $\$ 16$ and $\$ 13.65$ respectively and in a recent sale of nearly $500,000,000$ feet on the Quinaielt reservation in Washington, western hemlock brought the unprecedented price of $\$ 3.00$ and cedar, spruce, Douglas fir and other species were sold at $\$ 5$ a thousand. The timber on three units of this reservation sold during 1922 totaled more than $1,000,-$ 000,000 feet.

From the Klamath reservation alone more than $100,000,000$ feet are being cut each year.

The latest sale of Indian timber was that a short time ago of the Valley Creek unit in the Flathead reservation to the Heron Lumber Company, 130,000,000 feet at $\$ 5.12$ a thousand for the western yellow pine and $\$ 3.01$ for the other timber.

A sale of $482,000,000$ feet of western yellow and white pine and $44,000,000$ feet of Douglas fir in the Metolus unit of the Warm Springs, Oregon, reservation was inade at $\$ 2.88$ for yellow pine and $\$ 1.30$ for Douglas fir.

All stumpage prices quoted are initial as the Indian forest service contracts provide for readjustment of prices at regular intervals during the life of contracts.

## Novel Rustic Seat

Many years ago a large millstone from a local mill in South Dover, New York, was discarded. It lay on the ground for many years until one day a tender plant poked its head through the hole in the center of the stone. Later, when the girth of the tree almost filled the opening, this stone was lifted from the ground and supports placed under it. In the course of time the girth of the tree filled the opening so tightly that the millstone was held up without the supports, which were then removed.

This millstone was, therefore, not lifted from the ground by the tree, as might be supposed. A tree growing in an upright position neverdoes this, as any one versed in plant life will affirm.

If you want to attract attention the surest way to accomplish this is to do something worthy of attention.

## FROM THE LOOKOUT TOWER

The Human Fly is Dead. He slipped while climbing the face of a building and fell ten stories. His name, it appears, was Harry; but for the accident, we should no doubt never have known it.

Modern architecture, which is knobbed and bumpy, was the Human Fly's undoing, since it lured him into his vocation and so at last to his death. Once upon a day his roving, speculative eye rested on the wrinkled front of a skyscraper, furrowed and dotted with ledges, cornices, indentations. "A guy could climb that thing," said Harry. With his bold glance he marked the putative course of an agile man up that artificial cliff. Past the window-frame there; along the two-inch ledge, above; up the jutting angle of the corner, past the row of medallions-and up in the golden afternoon sunlight. Up until the little houses shrink away and reveal wind-ruffled blue water beyond, with black, moving ships. Up until the automobiles in the street are mere polished dominoes sliding among the animated dark beads which are people. Up, while the pigeons pacing on their ledges look at you face to face, mildly surprised. Up where the winds sing over steel and copper put in place and bolted there long ago by a whistling, flippant worker with a union card in his back hip pocket. In that moment of speculation Harry's fate was sealed; he became on the instant the Human Fly.

Why, do you inquire, should a sober human being with warm blood coursing through his veins go out and risk a hundred deaths to climb the outside of a building? After he is up, there is no more for him to see than any busy, honest tourist may discover by a trip in the elevator and a nose squashed against the window pane. Or, having done this mad impossibility once, why repeat the exploit? Why make a business of it, with a printed card and rates and a telephone?

Probably the Human Fly could not have told you the answer, for he was not articulate. Pressed, he might have
muttered that he did it for the money, which is ridiculous: he was to have received a hundred dollars for the climb which killed him, and it must be a busy year which would produce ten such engagements.

It is clear that something drew him upward as the high Alps draw the mountaineer. On the pavement he was only one among a throng; not a prizefighter or a statesman or a millionaire, to cause the crowds to press forward with a murmur of respect and interest as he passed by; merely one more unit, forced to wait for the policeman's whistle, jostled by messenger boys, honked at by taxis.
But with the first six feet of climbing up the marble or the limestone or the brick!-ah, then it was all different. The rest of the crowd halts to view him who was a lowly member of itself only a moment ago. White faces turn uphundreds of them. Admiration; wonder; friendly shouts of warning. In fact, you are the crowds, you see; in these moments they live in you; you are the anointed torch bearer, carrying the game of life up to new heights, doing so in the eyes of all men.
The wind is icy-edged, and the stone beneath your numbing finger-tips is as cold as death. As death!-there's a cheerful thought for a man who is hanging on the edge of eternity! A hundred dollars isn't much money when you live in New York where everything is so dear. A man should hold out for a hundred and fifty. But you feel so insignificant, somehow, sitting there arguing with a press agent in tortoise-shell rims. It's queer that one man has the courage to sit at an oak desk and drive a hard bargain, but is afraid to look out a twenty story window, while another man can shin a flagpole in a gale and yet must go home to his wife and tell her: "Only a hundred dollars."

The wind is getting stronger, because you are higher. That's moving along!
(Continued on Page 30)

## DISSTON HIGH-GRA:

## Reprint from the Diss

T1HE principal elements in a cross-cut saw are steel, design, and workmanship. A combination of the best steel, the best design and the most expert workmanship would without any question produce the finest, most efficient saw that could be had.
Let us inspect Disston Cross-cut Saws and see to what degree they possess these three essentials.

STEEL. First, consider the steel. Disston Cross-cut Saws are manufactured from the famous Disstonmade Steel. Ask any long-experienced woodsman or tool user about the quality of Disston-made Steel. He'll tell you it is the best steel made, and nine times out of ten he will prove his statement by showing you a Disston Saw which has been in use for a generation.

This quality of Disston-made Steel is not a accident. To procure the kind of steel he demanded for Disston products, Henry Disston built his own steel works in the Disston factory in 1855. Disstonmade Steel is the result of years of tests and development in that steel works. The steel works being part of the saw factory, both operated under one management with just one object (to manufacture better products) has given us the good quality of steel used in Disston Saws today.

DESIGN. Now, let us look for a moment into the design of Disston Cross-cut Saws. A saw, or any other tool, can be properly designed only by men of practical experience and training. The ideal arrangement is the co-operation of a number of expert saw-makers and a number of experienced saw-users working together. This is the way nearly all Disston Saws were designed.

Henry Disston \& Sons, Inc., are the largest and longest established makers of saws in the country. It is only necessary to trace the development of saw making and lumbering to see what an important part in that development was played by this company.
 The House of Disston was, for instance, the first in the United States to build and install automatic machines for

toothing saws; to introduce improved processes for filing different saws; to harden saws under

## ) E CROSS-CUT SAWS

## on Cross-cut Saw Book

specially designed dies; to temper saws under hot dies, which operation insures uniformity of temper; to use automatic hammers in smithing saws; to use automatic machines for grinding saws, etc, etc.

It is only natural, therefore, that, occupying as it has the place of leadership in the saw industry for over eighty years, the House of Disston has the ex-


Iw Resting on Ledge of Kerf
perienced men and the facilities necessary to produce saws of the proper design. Any saw user can
be certain that the design of any Disston Saw is the result of consultation between factory experts ( 54 men have worked continuously in the Disston plant for 50 to 60 years; these men are really expert saw makers) and experienced users, and that it has been tested and tried until it is "right."

WORKMANSHIP. Now, the other important element is the workmanship. The most expert workmanship can be had in the making of any product only when the makers, first of all, want to put into it the best workmanship obtainable, and, next, when the makers have the experience and training necessary to produce the best workmanship for that product.

Henry Disston \& Sons, Inc., have been the leaders in their industry for over 80 years. No concern can hold a place of leadership for that length of time and rontinue to do the greatest business in its line unless it has the will and the ideals that demand the best obtainable workmanship to make a perfect article.

Many years ago, Henry Disston said, "If you want a saw, it is best to get one with a name on it that has a reputation. A man who has made a reputation for his goods knows its value as well as its cost and will maintain it." The House of Disston has ever since maintained the reputation for its products established by its founder.

An important element necessary for expert workmanship is experience. It is here that the House of Disston stands without an equal. Of its 3600 employes-

54 have worked in the Disston factory from 50 to 60 years.
(Continued on Page 31)

## SQUIRRELS AID GOVERNMENT TO REFOREST LANDS

In conducting its extensive experiments to discover the best way to reforest waste lands or burnedover forest lands, the forest service has need of large quantities of forest-tree seeds, especially of the cone-bearing varieties. Since these trees do not bear evenly every year, it is necessary for economical reasons to ascertain in advance what species will furnish good seed crops each year as well as to undertake the gathering operations in regions where the cones are likely to be the most abundant. For these reasons information is collected as to the bearing and conditions of the trees in different parts of the national forests, sometimes as much as two or three years in advance. This is possible because many of the species of pines take from two to three years to ripen their cones.

When lumbering is proceeding at the
time of seed ripening it is a comparatively simple matter to gather the cones from the felled trees, but when the trees are to remain standing it is sometimes a rather difficult task to get the cones without climbing the trees.

A great deal can be accomplished with hooks or knives attached to long poles; but the forest rangers have learned to make use of nature's own seed collectors for their purposes. Plenty of cones are found in the seed stores of squirrels. This seems to be a very economical way for Uncle Sam to obtain his forest seeds.

Not only is this method convenient, but it has the further advantage of furnishing the best seeds. The squirrels apparently place in their hoards only high-grade cones. Moreover, the squirrels put their supplies away so early that it is possible for the foresters to come back to the squirrels' reserves after the cones still on the trees have opened up and scattered their seeds. The red squirrel is the best collector. In many of the holes of this species it is possible to find from eight to ten bushels of cones of good quality. The average quantity found in a single cache is about two bushels.

## From the Lookout Tower (Continued from Page 27)

How blue the river looks down at the end of a street. Quite a crowd; the policeman is making automobiles turn back and go 'round the block so as not to run over anybody. How cold it is today! Midsummer is the best time, when your fingers sweat and stick to the stone. Who ever invented these projecting cornices? Awful job to swing over them. Wouldn't a pair of gloves feel good! It's dangerous, really, when one's fingers are so stiff and numb. This is the trick: stand on the window ledge, leaning in, fold your arms and warm each hand in the other arm-pit. What a blast of wind!-the ledge is too narrow, catch the cornice above. Just finger room-wait! they's all numb-
the wind!- they're slipping: OH , GOD, THEY'RE GONE!

After all, anonymity is safer. Nothing ventured, nothing lost, says the cautious crowd. Any one may seek to be the torch bearer, set above his fellows, gazing in the presence of them all on the bright face of danger. But he must not slip.-Bruce Bliven, in The New Republic.

Cheerfulness helps to start the day right; it acts as a tonic on the day's work as effectively as the sun's rays in clearing away the mist. It is one of the greatest assets of any human being, young or old, rich or poor. It is the moral duty of every one to, at least try, to be cheerful and encouraging.

## "Home, Sweet Home"

On the 8th of May it was exactly one hundred years since "Home Sweet Home" was sung in public for the first time. The melody came in the second act of "Clari, the Maid of Milan" produced at Covent Garden, London.

The libretto was written by a wandering American Actor, John Howard Payne. The music was composed by Sir Henry Bishop, but Payne furnished the idea for the melody from an air he heard years before in Italy.

The play was soon forgotten, but the song became a universal favorite.

The author of "Home, Sweet Home" wandered over the world, writing and acting, gaining but a meager livelihood with his wits-practically an exile from home. He was hungry for home; the song was written from the heart. He came back and was given a consular position in Tunis, Africa. The irony of life! He died on foreign soil, thinking of his homestead.
'Mid pleasure and palaces though we may roam,
Be it ever so humble, there's no place like home!

## Iron Wedge Used by Lincoln for Rail Splitting (Continued from First Page)

are given in the affidavit of Mr. John Q. Spears, dated 1887. He says: "I distinctly recollect an occasion when I was in the blacksmith shop of one Joshua Miller, of the village of New Salem aforesaid, when Mr. Lincoln came into said blacksmith shop, and, after some conversation, asked Mr . Miller to cut his (Lincoln's) initials in an iron wedge which he, Lincoln, then held in his hand, to which Mr. Miller replied that he could not do it, as he was no scholar. Thereupon Mr. Lincoln said to said Miller: 'Let me have your hammer and cold chisel and I will cut them myself.' Thereupon the aforesaid Miller gave to Mr. Lincoln the cold chisel and hammer and I stood by and saw Mr. Lincoln, with said hammer and cold chisel, cut and make the letters 'A. L.' upon said iron wedge. These facts are vividly impressed upon my memory."

## Disston High-grade Cross-cut

## Saws

(Continued from Page 29)
106 have worked in the Disston factory from 40 to 50 years.

312 have worked in the Disston factory from 30 to 40 years.

546 have worked in the Disston factory from 20 to 30 years.

976 have worked in the Disston factory from 10 to 20 years.

This makes a total of 1994 men who have served continuously from ten to sixty years in the Disston plant. These men know saw making; they have experience; they are craftsmen capable of putting highly expert workmanship into the making of saws.

As mentioned before, Henry Disston \& Sons, Inc., has been the first to introduce and develop many of the machines and methods used in saw-making today. Much of the machinery in use in the Disston plant was developed or invented by Disston workmen.

In machines, methods and experienced workmen and material, therefore, the Disston factory is amply equipped to maintain its place of leadership.

Disston Cross-cut Saws are widely used. You will find them in use in nearly every country in the world. They are fast cutting, easy running saws, and because of the quality of Disston-made Steel from which they are manufactured, they hold their cutting edge and set for an unusually long time.

We have told you of the things that go into the making of Disston Crosscut Saws-the things that make them good saws.

To satisfy yourself that they will give you the service you expect, the kind of service that has held saw users loyal to the House of Disston for over eighty years, we ask that you try a Disston High Grade Cross-cut Saw. We will gladly let your decision as to the fitness and quality of Disston Saws for your use rest on the results of your trial of any of our various makes.

The first sleeping car was seen in 1858, and the first vestibule train in 1886.


SOME folks have the itch for buying things they want instead of things they need. That's why they always have to scratch.

OLD LADY: "Sonny, can you direct me to the First National Bank?"

Sonny: "I kin fer a quarter. Bank Directors don't work fer nawthin' in this town."

AHIGH School boy asked a librarian for a copy of "Veins and Adenoids." A search through books on physiology failed to reveal any such title. He was asked if he knew the author, and replied "Why Shakespeare, I guess"-It was discovered he wanted "Venus and Adonis." This is comparable to the woman who wanted "She Sat in the Wood Box"-which was found to be "The Satinwood Box."

DR. EDWARDS has gotten fresh paint on his white flannel trousers. Jim, the man of all work tries in vain to clean them.
"Dr. Rob, I can't get dis here paint off" said Jim.
"Have you tried gasoline?" asked the physician.
"Yas, Suh."
"Have you tried benzine?"
"Yas, Suh."
"How about turpentine?"
"Yas, Suh."
"Well, have you tried ammonia?"
"Naw Suh, Dr. Rob, answered Jim, with a smile, "I ain't tried em on me yet, but I'se sure dey fits."

AYOUNG man arrived home after having received the degree of M. A. for graduate work at college.
"I suppose Robert will be looking for a Ph.D. next," said a friend of the family to the father, "No, he will be looking for a J.O.B." retorted Dad.

AFTER giving the new stableboy directions for treating a sick horse, the master returned in a little while to see if all had gone well.

He found the stable-boy choking and spluttering, his face various hues of red, blue, and green.
"What's wrong?" inquired the boss.
"Well, you said to put a tube in his mouth and blow the powder down."
"Yes."
"Well, de horse blew first."

Aclergyman substituting for a friend in a remote country parish, was greatly scandalized on observing the old verger, who had taken up the collection, quietly take a fifty cent piece before presenting the plate at the altar-rail.

After service he called the old man into the vestry and told him with some emotion that he was caught in the act.

The verger looked puzzled for a moment. Then sudden light dawned on him.
"Why, Sir, you don't mean that old half dollar of mine. Why, I've led off with that for the last fifteen years.



## Building Disston Service

When a Disston Saw makes a quick, clean cut, doesn't need sharpening often, and stands up to the job day after daythat's what the user looks for. He doesn't have to go back of that. We do.
What the user wants is service, the best service, and he knows Disston Saws give it to him. We have to see that they do give it, and we begin back where the steel is mixed to see that every step in the process of building the saw. until it reaches the user's hands is carefully planned and faithfully carried out.
In over 80 years experience, we've learned what a saw ought to do, and we see to it that Disston Saws do it.

# DISSTON CRUCIBLE 

A MAGAZINE FOR MILLMEN
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## DISSTON TO BUILD NEW PLANT AT SEATTLE

## Seattle Branch of Henry Disston \& Sons, Inc., to Have New and Larger Quarters

$\mathbb{N}$EGOTIATIONS have just been completed whereby Henry Disston \& Sons, Inc., leases through the Seattle Port Commission from the State of Washington, a site at Fourth Avenue South and Massachusetts Street for the erection of a new building for their Seattle Branch. The site leased is well located and has

> a convenient , harbor location. Company estab-

Disston 108-inch Spiral Inserted Tooth Cut-off Saw used on Pacific Coast The Disston lished headquarters for its West Coast business at Seattle seyeral years ago. Since that time, other West Coast branches
have
been
estab-
lished
-Port-
land,
Ore-
gon
and
San

Francisco. The new building to be erected in Seattle has become necessary because of the need for larger quarters to take care of Disston's growing business in this section.
According to officials of the company, immediate plans call for a building to be erected on the site just leased in Seattle, containing a modern, up-todate repair shop and factory, a warehouse, show-rooms, and offices.

In its present location, the Disston Seattle branch is one of the largest of its kind in the Pacific Northwest. All kinds of special saws and equipment for Pacific Coast needs are manufactured, and what is perhaps the only complete knife manufacturing plant on the West Coast is operated in connection with this branch. In addition to this, stocks of Disston mill products manufactured at the home factory in Philadelphia are carried for distribution throughout the Northwest. The building of new quarters therefore, indicates only an expansion of present activities.

Some time ago, Disston made, at the factory in Philadelphia, and delivered through the Seattle branch, two of the largest circular saws in the world. Each of these saws is 108 inches in diameter and weighs 795 pounds. These saws were especially made for a Washington Mill and said to be large enough to handle any of the big logs that are ordinarily run through the mills of the Northwest.

# THE SAW-NAMES CONTEST WAS A HUMDINGER 

## Answers Received from Many Parts of the World

## Mr. D. B. McKenzie's, Muscatine, Iowa, Nearest Correct

The Saw-names Contest is over! It aroused wide-spread interest and must have afforded fun for some of the contestants, as we sensed a bit of humor in their answers. We hope all of them enjoyed it as much as we did.

When we published the list in the April Crucible we realized that several saw names would be appropriate to some of the occupations given. So in adjudging the winners we were guided by our key list and the appropriateness of the names suggested which did not correspond to our list.

Accordingly the names suggested by Mr. D. B. McKenzie of Muscatine, Iowa, was the most nearly correct. The next five lists in order follow:
Tie for Second Place-
Harry W. Kurtz, Centre Ave., Weston, Virginia.
W. Packall, The McLagan Furniture Company, Stratford, Ontario, Canada.
Tie for Third Place-
William Searle, No. 154 Maple Ave., Quebec, Canada.
Albert W. Hall, c/o Armstrong Cork Co., Beaver Falls, Penna.

Tie for Fourth Place-<br>George C. Wigle, 1097 Iincoln Place, Brooklyn, N. Y.<br>Miss Hanna M. Bearse, No. 77 South Bentinick St., Sydney, N. S. Canada.<br>W. J. Higgins, 701 Carlou Ave., Toronto, Canada.

O, those Canadians! Four out of seven best suggestions is sure going some, and we must doff our hat to them-because-there is a Miss among them.

Crucible List and the list suggested by Mr. McKenzie below. It would be necessary to poll a vote of all the Crucible readers to determine which is the better one:

CRUCIBLE LIST

| For the Hunter | Buck Saw |
| :---: | :---: |
| For the Liveryman-Hack Saw. | Hack Saw |
| For the Mariner-Compass Saw | Compass Saw |
| For the Baby-Fret Saw | Fret Saw |
| For the Printer-Circular Saw | Circular Saw |
| For the Musican-Band Saw. | Band Saw |
| For the Seamstress-Rip Saw | Rip Saw |
| For the Penman-Scroll Saw. | Scroll Saw |
| For the Editor-Pruning Saw | Heading Saw |
| For the Gossip-Buzz Saw | Keyhole Saw |
| For the Athlete-Track Saw | High Speed Saw |
| For the Bishop-Mitre Saw | Mitre Saw |
| For the Broker-Pit Saw | Pit Saw |
| For the Horseman-Whip Saw | Whip Saw |
| For the Boxer-Mill Saw. | Mill Saw |
| For the Dentist-Inserted-Tooth Saw | Inserted-Tooth Saw |
| For the Gambler-Deal Saw | Straight Hand Saw |
| For the Fisherman-Drag Saw | Drag Saw |
| For the Railroadman-Siding Saw | Siding Saw |
| For the Gangster-Gang Saw | Gang Saw |
| For the Weaver-Web Saw | Web Saw |
| For the Blind-See Saw... | See Saw |

Owing to the fact that in some instances several appropriate names could have been, and were, suggested for the particular occupation in question. We have decided to maila Disston Black Leather-covered Memorandum book to each of the persons mentioned above. We congratulate them on their knowledge of names of the serrated tools, and hope they get real Disston Service from their memorandum books.

## FROM THE LOOKOUT TOWER

Last month this page told the story of an exhibition of endurance, agility and nerve by a young chap who made an attempt to scale the front of a New York skyscraper. He fell. The crowd paid him the tribute of a passing homage, a nickname - "The Human Fly"then oblivion. The moral drawn from the story was, "Anyone may seek to be the torch bearer, set above his fellows, gazing in the presence of them all on the bright face of danger-but he must not slip."

In other words, the old story-the crowd loves a winner, and nothing succeeds like success. And that is true; but here's the other side.

A few weeks ago, an enterprising gentleman who is wise to the ways of his own generation, wanted to raise money for a worthy charity. He wanted a lot of money, so he took a sure way to get it. He put on a neverfailing drawing card in this free, enlightened and cultured land-a fight! Ten pugs he selected-no champions but game fighters-and made it known that on a certain evening they would hammer and batter each other until the referee called "Time!"

The news drew 60,000 persons, not 60,000 so called "rough necks," but 60,000 men and women from social, professional, business, laboring and sporting circles in every State in the Union. More than that, it drew four hundred thousand United States dollars in gate receipts. When it comes to paying for enjoyment or charity, the American public is no piker. It may have been charity which drew the crowd. More likely, it was the redcorpuscled urge for combat which was second nature to our broad chested ancestors, and which has survived swivel chair jobs, easy money, isms and ologies, new thought, and applied culture, and all the other baccilli, native and foreign, to which we have been exposed.

But that's another story. The point here is that one of those ten sluggers was an ex-champ, a huge chap, deliberate of movement, with a mild manner, who smiles. Four years ago he was
beaten, knocked out, his title taken from him. Now, he is middle aged, some years beyond the fighting limit. He faced that night a young man, a fast promising boxer, who was fighting to win. And he smiled. They say he smiled four years ago, too, when he went down and the crowd hooted and jeered and snarled. I don't know; I didn't see him then. But he smiled as he faced the young giant, who had all the advantage of youth and strength, smiled as he stood in that white square of brilliant light, the focus point for 60,000 pairs of eyes, smiled as he felt the crowd out in that dark amphitheatre, waiting, with what must seem to the man in the ring a terrible, impersonal aloofness, for results.

Perhaps he smiled because he foresaw the outcome which few then believedthe knockout of the younger man in the eleventh round; perhaps because he is middle-aged, has known the crowd's applause and its jeers and knows what both are worth; perhaps because time and hard knocks have taught him to smile; perhaps becausejust because.

The reason why is not important. Here's the astonishing fact: That same crowd, which, just four years ago, seeing him beaten and despising him, cried, "Thumbs down! He's done!" when he smiled that night, cheered him to the roof. There was no doubt about it. They were for him strong.

They are still for him, now, when he is preparing for a harder battle with a fast, fierce-fighting, young South American, who has some 20 years on him. And, though the chances are against him, there's a sneaking hope in everybody's mind that the impossible will happen and nerve and brains win over youth and strength in the game that belongs to youth and strength.

At any rate, Jess Willard's attempt to get back his place of leadership in the game, and his battle with Firpo,
(Continued on Page 40)

# QUEBRACHO-SOUTH AMERICA'S FLINT-HARD, UNWEDGEABLE, GNARLY WOOD 

This Red-heart Wood is a Vertible Storehouse of Tannic Acid

By WM. R. BARBOUR

[HEN, nearly four centuries ago, the first Spanish explorers sailed into the broad estuary of the Rio de La Plata, they were not seeking a new continent, but a way through to the rich islands of the Indias. So instead of tarrying where Buenos Aires now lies, they turned the prows of their tiny vessels up the gigantic river, and reached the site of Asunción, eleven hundred miles to the north, before they gave up the idea of winning through to the Pacific.

As they worked their way up the River vast treeless pampas lay on either hand. After several hundred miles open country still lay to the east, but to their left appeared a forbidding land of jungle and swamp, with dense forests of new and strange trees.

The most abundant species, then as now, was the quebracho, whose name is contracted from the Spanish quebra hacha-literally "it breaks the axe." The term is no misnomer, for of all
flinty-hard, unwedgeable, gnarly woods in the world it stands supreme. In two other characteristics it has few rivals-it weighs over eighty pounds per cubic foot, being a third heavier than water, and it endures almost everlastingly.

For centuries quebracho had no special value. No one realized that the red-heart wood was a storehouse of tannic acid, that over twenty percent by weight was pure tannin. It seems as if botanists might have guessed it, for quebracho (botanically known as Schinopsis) is a member of the Anacardaceae, the sumac family, and sumac has been used for tanning leather since time immemorable.

The first tannic acid factory exploiting quebracho was built at Puerto Casado, Paraguay, about 1889, and is still in operation. There are now some twenty other factories in northern Argentine and western Paraguay. In all, over a half million tons of wood are ground a year. Additional thousands of tons are exported in the log to extract
 plants in Europe and United States, and vast amounts are utilized for cross-ties, fence posts, and firewood. Yet the stands of quebracho cover so many thousand

Akove-Paraquayan Chao. Indians sawing a quebracho log.

Below-Paraquay. A carload of red quebracho logs.

square miles of jungle that there is calculated to be an ample supply in sight for the next century or more, even disregarding growth. Much of this reserve supply is at present inaccessible.

Logging operations in the quebracho region

ground being roughly cleared off and smoothed so that heavy logging wagons


Above-Native Sawmill near Famosa, Argentine, Chaco. Log is held in place by wedges and moved by crossbars. Carriage fed by hand. Note spiral mark on log left by en-twining vine.

Below-Chipper shed of an Americanowned tannin plant in Paraquay. Log is being placed in trough, and will be forced end-wise by ram against knives of chipper, seen to the left.
are still primitive, and frought with danger and hardship. This will be readily understood when it is explained that El Gran Chaco, the home of quebracho, is one of the least explored and little known parts of the tropics. Much of the region has never been penetrated, and is the home of especially ferocious Indians, not to mention jaguars, boa constrictors, poisonous snakes, alligators, voracious man-eating fish, myriads of mosquitos, and an infinitude of other insect pests.

Narrow gauge logging railroads are built through the flat lying jungle, a low terraplena or dirt fill being thrown up. Usually a quite wide right of way is cleared, that the hot sun may reach and dry out the water-soaked soil.

At intervalsnarrower rights of way, called picadas, are cut at right angles into the jungle, sometimes for several miles, the


Argentine Chaco. Hand power winch used for transferring logs from government railway to small industrial railway in tannin factory storage yard.
may be used. In Paraguay huge "twowheelers" called alzaprimas are preferred, while in Argentine nost operators use four wheel wagons called cachapés. In either case the logs are loaded by main strength and awkwardness.

Quebracho trees very seldom form a dense stand, being mingled with less valuable species. Peons are employed usually on a piece work basis, at so much per cubic meter or ton of wood. Each peon works separately. The trees, which run from one to two feet in diameter, with from ten to twenty feet of usable length.

When the tree has been felled the peon hews off the bark and thin outer layer of white sapwood, which contain little tannin, and chops through the trunk where the branches begin. Oxen then drag the $\log$ to the picada, and haul it on heavy wagon to "deposits"
(Continued on Page 39)

## WHAT DO WE PLANT WHEN WE PLANT THE TREE?



## The Cover Page

Beginning with this issue there will appear on the front page of the Crucible a series of illustrations of lumbering methods in various countries. Most countries have their own peculiar way of working, and it will no doubt prove interesting to our many lumbermen, millmen and carpenter friends in prac-
tically all countries of the globe to note the difference and make comparison.

The cover of this issue represents a husky Japanese sawyer at work with what appears to be a rip saw, toothed to cut on the draw stroke. The handle is formed to afford a firm grip when drawing the saw.

## Quebracho-South America's FlintHard, Unwedgeable, Gnarly Wood

(Continued from Page ${ }^{37}$ )

beside the railroad.
Skeleton flat cars are used to transport the logs to the factory, which must be located near an ample supply of water. There the logs are piled up until used. Around the plant and storage yard log loaders are employed, the first stage in the progress where labor saving machinery is found.

In order to leach out the tannin the logs have to be reduced to small chipsa strenuous process. They are laid in troughs and forced by rams endwise against a horizontal revolving chipper armed with knives. The uproar is tremendous, the massive logs dancing and jerking. Though the steel knives are an inch thick, with edges whose bevel is very short, it is not uncommon to see them ripped apart like cardboard when they strike a knot. They have to be sharpened every few hours, and have a very short life.

The fine chips are elevated to overhead bins, whence they feed by gravity into a battery of leaching cells. The leaching process is on the principle of percolating coffee, hot water and steam under low pressure circulating from cell to cell and dissolving out the tannin. The leached chips are discharged from the bottoms of the cells and transported to the boiler room, where they suffice for fuel for the plant.

From the cells the thin liquor, containing a few percent of tannin, flows to storage vats, and then to a series of vacuum pans where it is boiled down to a thick liquor of the consistency of molasses. From the last vacuum pan it passes to a contrivance called a colandria, a large vacuum pan or cell containing revolving steam coils which both heat and stir the mass, until finally it is run off into sacks, in which it hardens into a dark red substance resembling rosin.
Quebracho is almost universally used in Argentine for cross ties, which are usually sawn, not hewn.

Some of the small tie-cutting sawmills use old fashioned sash saw rigs, while others employ inserted tooth circular saws, usually with every alter-
nate tooth missing. Saws for cutting quebracho are given almost no "set."

NOTE-Mr. Barbour, who has traveled extensively in Latin America, operates the Seven Seas Travel Service, Fisk Building, New York City, specializing in travel to the West Indies and South America. He has a first hand knowledge of these countries that is of great value to travellers.

## Forest Fire Tools

To the end that forest rangers may lack neither the tools with which to check the advance of forest fires nor the sustenance to enable them to keep up the fight, the forest service has distributed hundreds of "tool houses" to the various national forests and has stocked them with a supply of tinned

provisions for the use of rangers on "fire duty." The implements contained in these boxes are also invaluable to rangers on patrol, in clearing away fallen trees and other debris from fire breaks and trails without the necessity of returning to the main base for supplies. These tool outfits are usually established in the more inaccessible sections of the forests where natural obstacles render the use of the new chemical equipment impractical.


Benge-Can you write shorthand? Stenog-Yes, only it takes longer.

European diplomats are reminded that between an idea and an ideal there is a " l " of a difference.-Manila Bulletin

The book of etiquette tells you almost everything except the graceful way to retrieve the roast from a guest's lap.-St. Joseph News-Press.

Ike-Does your father have to pay much for coal?

Mike-Not a cent! We live near the railroad tracks and he makes faces at the engineers.

Alice for the first time saw a cat carrying her kitten by the nape of its neck.
"You ain't fit to be a mother," she cried scathingly. "You ain't hardly fit to be a father!"-Youth's Companion.

The shades of night were falling fast when through a thriving city passed a youth who bore 'mid snow and ice a banner with the proud device, "Excelsior."

It seems that he had something good, a new and wholesome breakfast food. They read the banner that he bore: now half the town is calling for "Excelsior."

A young lady having asked a surgeon why woman was made from the rib of a man in preference to any other bone, he gave the following gallant answer:
"She was not taken from the head lest she would rule over him; nor from the feet, lest he should trample upon her; but she was taken from his side, that she might be his equal; from under his arm that he might protect her; from near his heart that he might cherish and love her."

Dentist: (applying a tool to his car) "Now this is going to hurt just a little."

One reason a girl can't catch a ball as well as a man is because the man is bigger and easier to catch.

Another advantage of telling the truth is that you don't have to remember what you said.

Science Note-He: "Does the moon affect the tide?"

She-"No, only the untied."-Michigan Gargoyle.

Him-What do they call potatoes in Sweden?

Her-They don't call them, they dig 'em.

It was a soirée musical. A singer had just finished "My Old Kentucky Home."

The hostess, seeing one of her guests weeping in a remote corner, went to him and inquired in a sympathetic voice:
"Are you a Kentuckian?"
And the answer came quickly: "No, madam, I am a musician."-Montreal Gazette.

## From the Lookout Tower

(Continued from Page 35)
scheduled for July 4, are attracting about as much attention just now as the League of Nations, prohibition, presidential possibilities, or the high price of sugar.

The crowd loves a winner: likewise, it hates a loser. That's another survival from ancestors who lived in a cave. But if a fellow, trying for the top, has slipped, seriously but not fatally, and makes a game attempt to "come back," why, just naturally, hats go off to him.
338.105

II

# DISSTON CRUCIBLE 



## INDEPENDENCE HALL THE AMERICAN NATION'S PATRIOTIC SHRINE

WITH the recurrence of the Nation's birthday, and with its Sesqui-Centennial but three years hence, it may not be amiss to recall some of the historic relations of Independence Hall, Philadelphia, with the formative period of the UnitedStates of America, for beyond doubt this building is of great and most sacred interest tothe American people.

On May 10, 1775, the East room on the first floor of Independence Hallwas the meeting place of that stanch body of patriots who formed the Second Continental Congress.

The bronze statue of Washington infront of the Hallis a silent reminderthat in this same East room of the Hall,June 15, 1775, George Washington was chosen Commander-in-Chief of the Army.

Within its walls were heard the vehement denunciations hurled against the Stamp Act, by the sturdy sons of the Colonies.

Here, after the Battle of Lexington, assembled an aroused and determined people who passed a resolution "to defend with arms


Independence Hall, Philadelphia Chestnut Street, between 5th and 6th Streets
their property, liberty, and lives."
And here, too, on July 4th, 1776, the nation was born-the Declaration of Independence was signed, and then read from the "awful platform" in the yard, to the people of Philadelphia; after which "Old Liberty" in the steeple rang out its message, proclaiming for the first time -
"Liberty throughout all the land, to all the inhabitants thereof."

The American officers taken prisoners at the Battle ot Brandywine, Sept. 11, and of Germantown, Oct. 4, 1777, were held in the East room as prisoners of war, and on July 9, 1778, the Articles of Confederation and perpetual union between the states were signed in this same room by representatives of eight states.

Independence Hall was completed in 1734, but the steeple was not added until 1751.

The city government has restored Independence Hall to practically its former condition. It is open to public week days, 9 A . M. to 4 P.M., Sundays 1 P.M. to 4 P.M. It is America's patriotic shrine.

# DISSTON <br> A MAGAZINE FOR MILLMEN 

## BEECH TREE PRINTS INITIALS

IN January, 1886, an American beech tree was cut down about one mile north of Morrisville, New Jersey. On splitting a section of this tree into firewood a remarkable work of nature was brought to light. On one of the pieces of wood were plainly embossed the initials " A .
forming genuinely embossed letters and numerals. Who has a better explanation? What a story or romance these letters could tell!

Could the carving of these initialsone under the other-have been the earnest of a betrothal of a New Jersey swain and his fair lady? Unless some

J.D., J.E.D., 1839," and on the other piece were letters and figures exactly corresponding to the embossed ones. A careful examination showed that the tree must have been about 67 years of age when the initials were cut. The embossed part was nearest the bark. It is supposed that the tree in growing, gradually overgrew the part with the initials cut in it, when its tissue was pressed into the mould-like initials,
one is in possession of the history of these initials, they will forever remain a secret, as they were carved eightyfour years ago and the carver most likely had reached his majority at that time, for the clean-cut, well-formed letters and figures would indicate they were not the work of a juvenile.

The sections of wood are owned by Henry Moon, a resident, of Morrisville, New Jersey.

[^2]

The other day, we were moved to deep thinking-an occurrence as rare as the dodo bird. For an article, we needed an idea of something indestructible, some great gift to mankind which lasts always, which does not change with centuries, but goes on while men are born and die and republics and empires are built and torn down. We glanced through Mr. Wells' "Outline of History" and couldn't find a thing of that sort mentioned. We even looked through Mr. Van Loon's "Book of Knowledge," and only got a headache.

Somebody came in with this story of Tolstoy: He found a peasant plowing and asked him, "If you knew you were to die tomorrow, what would you do today?" The peasant wiped sweat from his forehead with a grimy hand and answered simply, " 1 should plow."

Which reminded us of a few years back, when life was more or less tense and ordinary conversation was largely of death, multilation and destruction. We heard daily of horrible things men were doing to each other until we forgot how to shudder. Suspicion, hatred, and ill will were like a poisonous gas in the air. And most of us kept sane because we had ten hours' work a day to do, and lacked the time for brooding.

We remembered some ladies who were tempted to be sorry the war was over. They no longer had any excuse to work and they'd only just discovered what fun it was.

We recalled the way the pyramids were built and the Taj Mahal. Manual labor, lots of it.

It was quite a shock when the light broke, but we got over it. Quite evidently, the oldest and best gift to mankind, at least in his present state of exposure to indigestion, mosquitoes and general cussedness-his own and other folks'-is WORK.

We say it was a shock because we'd always regarded work as a curse and an unmitigated nuisance, and the thing that interfered most consistently with our fun. For instance, there's a quiet, lazy stream that we know of. The trees on either side form a roof over it,
and when the sun shines through, it makes little shifting spots of gold on the water. You can sit on the bank there and pull out enough fish for breakfast without using much more effort than it takes to pull them out. You'd imagine that with a pup tent, a frying pan, a coffee pot and a few other essentials, a fellow could stay there as long as it stayed warm. And we know by experience that, if we go, along about next week, we'll be getting restless, wanting to get back to the old job.

And there you are! If you want to be reasonably content, you've just naturally got to do a certain amount of work. We don't know why, but that's the way it is.

And it's best to find a human being to work for. Any other kind of work, no matter how much fun it is generally, at times seems pointless.

If you lose your hearing, your eyesight, your power of speech, you can find substitutes for them. But there's no substitute for a sense of proportion.

If you've lost yours, before you get to be too much of a nuisance to the folks around you, go out some place where your vanity will get a few knocks and stay there till you get it back.

Women are in most everything these days. There are police women, lady car conductors, even lady magistrates. They wear knickers and they smoke cigarettes. But we haven't yet heard of one who could win a pot on a pair of sixes.

Life isn't all a joke, of course, but it's funny enough to be billed as a comedy, and give everybody at least one laugh a day. Are you getting your share? If you're not, a million dollars more or less won't make up for it.

# THE NEW DISSTON INVINCIBLE CHISEL TOOTH SAW 

## Reduces Operating Expenses-Has Patented Interlocked Teeth - Stands Greater Amount of Feed; Consumes Less Power

Patented April 13, 1920.
This is not just "another Chisel Tooth Saw." The new Disston Invincible Chisel Tooth Saw has advantages and features not found in any other style of inserted tooth saw-features that will mean BETTER WORK in your mill.

This new type of Disston Saw has been developed after many years of work by experts in our own factory, cooperating with experienced saw users, to give certain needed advantages that make for faster, better cutting, and greater economy in operation.

## Features that Make the Disston Invincible Saw the Best Saw for Your Use

This New Design Provides ExtraThroat Room-And Is a Cooler, Easier Running, Faster Cutting Saw.

The Invincible Tooth Is Absolutely Locked in Place.

Only One Size of Bits for Four Different Sizes of Holders.

A New, Special DisstonMade Steel For Greater Service.

The Invincible Saw is easy running because, as you will see from the illustration on the next page, the specially shaped gullets are so made that the saw-dust is easily discharged by centrifugal force and cannot become wedged in the gullet and carried back into the cut. Therefore, by carrying all the saw-dust out of the cut, friction is reduced and the danger of saw-dust forcing the saw from a straight line is eliminated. The Invincible is easy running, gives a minimum amount of resistance in the cut, will stand a greater a mount of feed, and less power is required to drive it.

The patented design of the Invincible Saw is such that the tooth is tightly locked in the blade. (See details on next page.) A tooth that becomes loose will cause the saw to be out of round, often break points or projections or cause loss of holders-these troubles are eliminated in the new Invincible Saw.

To the mill man who uses chisel tooth saws with different sizes of holders, such as large saws for cutting logs and smaller saws on edgers and lath bolters, and to the dealer selling such saws requiring different sizes of holders, the Invincible Saw has a great advantage. The Invincible Saw is made so that one size of tooth fits in any one of the four different sizes of holders-Nos. 55, 66, 77, or 88 . This means that only a single stock of bits, quickly interchangeable for different kinds of work, is necessary.

The Invincible Saw is manufactured from a special Disston-made Steel, recently developed, which, with its special temper, toughness, and strength, produces saws that will retain their tension longer and insures more and better manufactured lumber.

## Illustrations and Complete Description Next Page



## Special Design Gives <br> Extra Throat Room and Clearance With Disston Invincible Chisel Tooth

One of the important features of the Disston Invincible Chisel Tooth Saw is the extra throat room and clearance that the design makes possible over that provided in the construction of ordinary chisel tooth saws.
The illustration above, which is a
two-thirds size of the bit and No. 66 holder, shows the special shape of gullet. There is no place in this design of gullet for sawdust to become wedged and so be carried back into the cut. Because of this design of the Invincible tooth, all of the sawdust is easily discharged by centrifugal force.

It is because of this feature that the Disston Invincible Saw cuts easily and fast and runs so smoothly without heating and with less power.

Fig. 1

## eeth of the Disston Invincible th Saw Are Locked in Place

Patented April 13, 1920


As the tooth is turned further into position this pressure is relieved and, as shown at the point indicated in Figure No. 3, the tooth is firmly seated in its socket in cutting position.

It can be seen, therefore, how this patented locking feature makes it impossible for operating stress of any kind to even start the tooth from its position. On the contrary, every stress exerted on the cutting edge of the tooth tends only to seat it more securely.
eth in the Saw is such to start for$t$ also holds tion and in
the holder 1 the tooth, e is brought ily partially
This point e No. 2.


## Lightest Known Wood

Balsa, one of the commonest trees in the forests of Costa Rica, is said to be the lightest of all known woods. A piece of this wood is shown here on one side of a pair of scales and a piece of Ironwood from Australia on the other side. Though the piece of Balsa is ten times the size of the former, it is balanced by the smaller piece. The latter weights 70.5 pounds per cubic foot, and the Balsa wood 7.3 pounds per cubic foot. Ordinary cork is three times as heavy as Balsa. Balsa wood can readily be indented with the finger nail. As it absorbs water readily it is treated with parafine in this country and used in making floats of life preservers and in the construction of life rafts. It is also used for buoys and floating attachments to signals, as well as for interior linings of refrigerators. It has also proved very successful in fireless

A.-Ironwood, 70.5 Pounds fer Cubic Foot
B.-Balsa, 7.3 Younds per Cubic Foot

[^3]
## Sawmilling in Prosperous Times

One hay wire sawmill, Nice location, Ten-mile haul
To shipping station. * * * *

Half-mile of plank road,
Rest of it mud,
Six bridges condemned
But otherwise good.
Timber strictly yellow fir,
Very few knots,
Awful sound
Between the rotten spots.
Fire-box boiler-
Flues leak some;
Injector patched
With chewing gum.
Darn good whistle
And carriage track,
Nine feet left
Of the old smoke stack.
Belts a little ragged;
Rats ate the laces;
Head saw is cracked
In a couple of places.
The engine knocks,
And is loose on its base,
And the fly-wheel's broke slightly In just one place.

*     *         *             * 

There's a pile of side lumber,
And a few cull ties,
But they've been attached
By some roughneck guys.
There's a mortgage on the land That's now past due,
And I still owe
For the machinery, too.
But if you want to get rich
Here's the place to begin, For it's a darn good layout
For the shape it's in.
We are indebted to the Moline Timber Company for the above poem. We would gladly give proper credit, if we only knew the name of the genius who wrote it.

## PUZZLING TREE GROWTH

SELDOM does one see a more puzzling natural growth of tree than that shown in the picture. The supposition is that at one time the water loosened and felled two trees, dropping them in the position shown in the illustration, one tree above the other. Enough roots were kept intact to continue the growth of the trees. Later, evidentlytwoshoots grew up from the lower tree and grafted themselves to the upper tree. The picturegives one the
outer limbs are connected with the fallen tree; but such is not the case, for they are separate trees.
 impression that the

## DISSTON SAW PASSES THROUGH BOLSTER PLATE

Recently we received a letter from Mr. E. A. Orgeron, who for the past eight years has been filer for the Bomer-Blanks Lumber Co., Inc., Blanks, Louisiana, in which he tells of an interesting experience he had with a Disston Saw. The letter in full, follows:

"Iam a reader of the 'Disston Crucible' and have often read of different experiences saw filers have had with saws. The following is an account of what a Disston saw did here on the 10th day of May, 1923:
"We were sawing a small gum $\log$ that was hollow nearly its total length. The sawyer had taken off his first slab and called for a board $21 / 2^{\prime \prime}$ thick, which was to be thrown over to the resaw. In cutting this board the saw struck a piece of iron that was concealed in the hollow log. This piece was a Bolster Plate from one of our log wagons that had been jammed in this hollow $\log$ in some way. It measured $9^{\prime \prime}$ wide by $16^{\prime \prime}$ long by $5 / 8^{\prime \prime}$ thick, and the saw hit this plate on the end and ran lengthwise of the plate for $13^{\prime \prime}$, making a clean cut, just as if it has been a piece of wood.
"We stopped the mill and took off the saw and to my surprise the saw was scarcely damaged, with the exception of two short spaces where the teeth were broken off. I have been filing all makes of saws for hardwoods and cypress for the past 17 years and have cut almost everything that could be expected to be found in a log, but to my judgment this Disston saw has done more than any other saw I have ever used.
" Yours truly,
May 19, 1923
E. A. ORGERON "

A smile is cooler in summer and warmer in winter than frown. Smiles cost less than electric lights, and they make workroom, office and home brighter. Let's economize.

## SAWDUST

"What does a dash before a sentence is finished mean?"
"I know of a guy that tried that and it meant five more years hard labor." -Sun Dodger.

Helen-"Who were you out with last night, Mabel?"

Mable-"My aunt."
Helen-"Well, tell your aunt he ought to shave!"
"Class," said the teacher, "I want you all to be as quiet as you can be-, so quiet that you can hear a pin drop."

Silence was golden.
Small voice in rear of room-
"Let 'er drop."

First Conductor-"How's business?" Second Conductor-"Fare enough."

She had a vast amount of money, but it had come to her quite recently. One day an acquaintance asked her if she was fond of art.
"Fond of art!" she exclaimed. "Well, I should say I was! If I am ever in a city where there's an artery I never fail to visit it."

A certain London magistrate was possessed of a dry wit. He was taking coffee in his club one summer evening when a fellow member remarked that hot coffee was not a good summer drink.

> "You should take cooling drinks," he added. "Have you ever tried gin and ginger beer?",
> "No,", answered the Magistrate, "but I've tried a number of men who have." -Tattler, London.

The head of a large firm, while passing through the packing room, observed a boy sitting on a case of goods and whistling cheerily.

The chief stopped and looked at him frowningly.
"How much do you get a week?" he demanded.
"Ten dollars," came the brief retort.
"Then here's a week's money; now clear out."

The boy pocketed the money gleefully and departed.
"How long has he been in our employ?" the chief inquired of the shipping clerk, who was perched nearby on his tall stool.
"Never, so far as I can remember," was the unexpected reply. "He just brought me a package from another firm."
 AUGUST


CHINESE SAWYERS

## BetterWork

Ask the men who know!
The experienced lumberman knows Disston Cross-Cut Saws. He knows they make a clean, fast cut in any timber. He knows

the extra number of logs piled up and the general feeling of satisfaction at the end of the day, with their use.

The saw maker knows the reason: 83 years of the best in saw making which have produced hard, finely tempered steel, careful and accurate design of blade and teeth, and a sharp cutting edge that lasts.

Remember - Disston Quality is always in demand and, as it takes time to produce such quality, it is well to anticipate your requirements and order in advance of your needs.


# DISSTON <br> A MAGAZINE FOR MILLMEN 

## A WOOD "PAINTING"

"Pals," a Remarkable Wood Mosaic

©GENTLEMAN of Wilmington, Del., (John T. Perkins) has completed a most remarkable piece of mosaic work in wood, a "painting" entitled "Pals." It is 22 by 24 inches in dimensions, and took him six months to complete. All the coloring of an oil painting is brought out by using an almost endless variety of various colored pieces of wood. A difficult part of the work was to get the properblending of colors, but even this hasbeen done in a very realistic manner. The maker of this piece of work has been forty

"Pals," a Wood Mosaic years in collecting these pieces of wood from all over the world. Not a drop of paint or coloring matter has been used in the "painting." Thirty-seven different kinds of wood have been used. The most delicate line, shadow, and shading have been produced by using the proper pieces of wood. The boy's hat, for instance, is formed of satinwood, hazel, and white holly; the hair of African mahogany; eyes, white holly, French beryl and
black ebony; eyelids, eyebrows and shade line, hazel; nostrils and interior of ears, red gum; lips, tulip; teeth, white holly; shirt, Hungarian beryl and ash; buttons, end-grain of boxwood; tear on right shoulder, ebony; hand and worm can, white holly; shading of worm can, dark birch; overalls, curly birch ; suspenders, mahogany; buttons, black ebony; patch, maple, beryl, white holly, vermilion; parting line to form two legs, ebony; feet and toes, white holly and ebony; fishing rod, thorn, with light tulip in the end; fishing 1 ine, Honduras maple; fishing boat, light tulip and Honduras maple; fishing hook, cut in with ebony dust; fishing stick in float, rosewood.

In the dog, the nose and all shading, including the mouth, are all of ebony; eye of boxwood and balsam; body, legs, and tail of beryl, Circassian walnut, and ebony. The path for boy and dog is natural freak ebony. The title plate, "Pals" is formed of petrified hickory,
(Continued on Page 55)

# CARVING KNIFE OF DISSTON STEEL MADE IN 1868 <br> Used Ever Since-Owned by A. D. Gumbs, of Brooklyn, N. Y. 

©$S$ one who is conversant with Disston history was inspecting the carving knife from which the accompanying picture was made, it spoke to him as a voice out of the past, of events contemporaneous with its making.

1868? Yes! This U. S. of ours was
notice thereof-that he will not waste his goods nor lend them unlawfullythat he will not contract matrimony within the said term-that he will not play at cards, dice, or any other unlawful game, whereby his master may be injured- $-* * *$ nor haunt ale-houses, tav erns, nor play-houses, but in all things behave himself as a faithful apprentice,'
for all of which the apprentice received


## Carving Knife made in 1868 of Disston-made Steel

then recovering from the effects of the Civil War, and Henry Disston, the founder of the Saw, Tool, Steel and File Works which made the steel of this knife blade was becoming famous for his tools par excellence. The firm was then only 28 years old, but the business was increasing with leaps and bounds.

Just a bit previous to this date Henry Disston associated with himself in the saw works, his eldest son, Hamilton. The works was located at Front \& Laurel Streets and had about outgrown its area.

It was also about this time that Henry Disston returned from France with two band saw machines and installed them in his works to the near consternation of his workmen, who predicted dire results if an attempt were made to operate them. They were the first band saw machines used in the country.

At this time boys bound themselves to Henry Disston, as well as other employers for an apprenticeship of three or more years-

> "During which time. the apprentice doth covenant and promise, that he will serve his master faithfully, keep his secrets, and obey his lawful commands-that he will do him no damage himself, nor see it done by others, without giving him
the munificent sum of $\$ 2.50$ a week. Several of these boys are still with the firm, after continuous service, none the worse for the iron-clad agreement they signed.

As the years during the interim wore away, so did the knife blade, with constant usage, as witness the comparative sizes: the blade was originally 9 inches long and one and three-eighths wide; its present dimensions are 8 inches long by seven-eighths inch wide.

Time and time again during more than a half century this knife has been steeled to carve finely browned Christmas turkeys, cut luscious steaks, and slice the "staff of life" until the carver is not much for appearance, but the quality of the remaining part of the blade still makes it a valuable asset.

The carver has a one-piece rosewood handle fastened to the blade by two brass saw screws. The handle is slit two-thirds of its length to receive the blade.

Mr. Gumbs, of 126 Ridgewood Ave., Brooklyn, New York, the only and original owner of the knife has on several occasions visited the Disston works, and was personally acquainted with the former managers of the various departments.

It isn't the hand fate deals you, but the way you play it that will count in the final score.

After all, it is more satisfactory to be loved than to be admired, flattered or even feared.

## FROM THE LOOKOUT TOWER.

Did you ever hear the story of the Chinese philosopher, who, upon seeing a wealthy personage, gorgeously bedecked and arrayed in jewels, bowed low before him? The tale goes that the w. p., slightly puzzled, asked why all the gratitude, and the philosopher answered, "For your beautiful raiment. With all the burden and trouble of wearing it, you yet cannot see it, whereas I, with no trouble at all, have all the delights of beholding it."

Yes, you may show that to your wife if you like; but, on the level, now, don't we all use up considerable time and money and energy in a futile effort to impress the other fellow? Futile, because our actions are yardsticks by which anyone who cares to take the trouble can measure our real size.

Which reminds us: Dr. Elliott is credited with having said that the average woman has a vocabulary of only 800 words. Whereupon, a traveling man most pertinently remarked, "Ah, but think of the turnover."

No man can do a big, original thing until he has first learned to do "line" work. Edison had to learn the multiplication table; Caruso to practice scales; Shakespeare the alphabet. That's where most of us lose out. For the hard work, which great men have agreed comprises about nine-tenths of genius, we want to substitute the wings of a Pegasus, and life is over before we discover there is no Pegasus.

Often the hardest part of the fight is just before the victory. So don't quit until you're quite sure you're licked.

Some people used to be fond of say-

> Fit's true that Satan has emissaries and agents, they must be the people who start rumors and those who keep them going. A careless tongue can do more real harm than a nest of machine guns. And it doesn't have to be a feminine tongue either.
ing, "There's no sentiment in business," when they meant that business was a very material and sordid affair altogether, a sort of disagreeable necessity. Now, business standards have made popular loyalty, integrity, sobriety, and a meticulous honor. And, so strong is our personal faith in them, we believe they will yet make brotherly love popular by proving that it pays.

If the man were living who made the famous remark about the songs of a nation, he would phrase it today: "I care not who makes the laws of a nation, so long as I write its headlines."

Everything - literature, politics, the stock exchange and the multiplication table -looks tremendously complicated until you get on the inside of it, but nothing is bigger than a man who isn't afraid to get close enough to see all sides at once. However, it's as well to go slow on any job until you've learned just where the "kick" is in it.

If you're not learning something new about your work every day, either something's wrong with you or you ought to have another job.

If your education has not equipped you to better understand and sympathize with the fellow less fortunate than you, it has not been complete. He who has not learned tolerance has not yet learned how to live. Experience must teach him and sometimes the lesson is not pleasant.

## BE CAREFUL ABOUT FOREST FIRES

## When Uncontrolled, They Cause Tremendous Loss

0T may not be too late in the season to sound a note of warning to picnickers and campers to be very careful with the fires they may be obliged to build for cooking purposes, etc., because the destruction caused by forest fires in this country for a number of years has been enormous.
Comparison of data collected of the fires in our National Forests for 1919 and 1920 is interesting, giving as it does a very fair average of recent years:
among the peaks where roads and trails are few, and stations and forest rangers far apart. With the tangled growth and almost impassable country all apparently striving to give the fire a chance, there is small cause for wonder that the scars of its destructive appetite will show over years to come.

One series of thunder storms started forty-eight fires in one forest in six days. And then it did not put them out with the accompanying water supply which all good thunder storms should have. It was, on the contrary, a dry storm which tried to the breaking point all the Forest Rangers' Protective

| Classes of Fire: | Classes and Causes of Fires | Number of Fires |  |
| :---: | :---: | :---: | :---: |
|  |  | 1919 | 1920 |
| Burns less than on | quarter acre | . 2839 | 3122 |
| Burns between one | quarter and ten acres | . 2014 | 1724 |
| Burns 10 acres and | ver, damage under \$100. | . 1170 | 884 |
| Burns 10 acres and | over, damage under \$1000. | 449 | 249 |
| Burns 10 acres and | over, damage over \$1000.. | 328 | 99 |
|  |  | 6800 | 6078 |
| Causes of Fires: |  |  |  |
| Railroads. |  | 701 | 508 |
| Lightning. |  | . 2197 | 3081 |
| Incendiarism. |  | 339 | 245 |
| Brush Burning. |  | 360 | 248 |
| Campers.. |  | . 1466 | 1053 |
| Lumbering. |  | 278 | 211 |
| Unknown. |  | . 1155 | 485 |
| Miscellaneous. |  | 304 | 247 |
|  |  | 6800 | 6078 |

The area burned over in 1920 was 342,193 acres, against 2,007,034 in 1919, and the damages in 1920 were $\$ 419,897$ against $\$ 4,919,769$ in 1919. The cost to the government of fighting these fires was close to $\$ 1,000,000$ and much, of course, could have been saved if human beings would be careful about fires.

The campers' fires decreased materially even though the forests were used much more in 1920 than the previous year; but the lightning fires, over which control seems to be impossible, increased tremendously. These fires are the hardest to combat, most of them occurring in the high places

Forces and volunteers that could be rushed to the district.

For five years figures have been obtained which tell the sad tale of fires in all forests in the United States, something like this: average number of fires 32,517 annually; 7,560,000 acres burned; property loss $\$ 17,240,000$.

Seventy-nine per cent of the forest lands in our country, aggregating $369,000,000$ acres, is in private ownership. And approximately $219,000,000$ acres are without any fire protection at all. A statement which shows again the necessity of being careful about fire.

Fires in "forest cities" obviously


The scenic effect of a forest fire at night is wonderful
without the equivalent of the fire departments and high-pressure water mains in civilized communities, race with terrific speed. In thickly wooded and mountainous sections with the wind as a traveling mate, fire will race twenty miles in an afternoon. It will charge up a nine-hundred-foot slope
with its attacking line strung out a mile in width, in as little time as twenty minutes. A single fire has been known to lay waste thousands of acres of timber in a day.-"Tree Cities" by Champion Coated Paper Co., New York, through whose courtesy we reproduce the forest fire scene.

## SENSE-O-GRAPHS

" There is a tide in the affairs of men
Which taken at the flood leads on to fortune."

## MAN WANTED

Wanted-A man for hard work and rapid promotion, who can find things to be done without the help of a manager and three assistants.

A man who gets to work on time in the morning and does not imperil the lives of others in an attempt to be first out of the office at night.

A man who is neat in appearance and does not sulk for an hour's overtime in emergencies.

Aman who listens carefully when he is spoken to and asks only enough questions to insure the accurate carrying out of instructions.

A man who moves quickly and makes as little noise as possible about it.

A man who looks you straight in the eye and tells the truth every time.

A man who does not pity himself for having to dig in and hustle.

A man who is cheerful, courteous to everyone and determined to "make good."

This man is wanted everywhere. Age or lack of experience do not count. There isn't any limit, except his own ambition, to the number or size of the jobs he can get. He is wanted in every big business.

Seest thou a man diligent in his business? He shall stand before kings. -Solomon.

## Three Valuable Observations

"Life, health, happiness and success depend largely upon our ability to overthrow a fault, bridle a wrong inclination and overcome our own weaknesses.
'Self is the one big enemy with which everyone must deal hand to hand-it must be trained and disciplined to do the bidding of the intellect. Mind must rule matter in order for us to do anything worth while.
"Self-denial and self-restraint are the foundation stones of real character."Ex.

## THINK

Read what some of the greatest thinkers of the ages have said:
"Thought rules the world."-McCosh.
"Thought makes the man."-Alcott.
"Thought is the seed of action."Emerson.
"Thinkers are scarce as gold."Lavater.
"Thinking, not growth, makes manhood." - Isaac Taylor.
"Learning without thought is labor lost." - Confucius.
"Man by thinking only, becomes truly man."-Pestalozzi.
"Nothing is so practical as thought."-Cecil.
"As a man thinketh in his heart, so is he."-Proverbs.

> "There is no thought in any mind but it quickly tends to convert itself into a power."Emerson.
"Some people study all their life, and at their death have learned everything except to think."-Demergue.
"Why do so many men never amount to anything? Because they don't think."-Edison-Anon.

If a man is wrong, don't throw him -show him. Do not roast-reason.

Business is something like aeroplaning. To stop is to drop and generally

# CENTRAL PENNSYLVANIA LUMBER COMPANY MAKES BIG CUT 

Fred Harrington, Filer-Disston Saws Used

©FORMER lumberman, Mr. C. M. Knopf, now with the Gulf Refining Company, Philadelphia, recently sent us an account of a large cut made by the Central Pennsylvania Lumber Co., which he thinks is probably the largest cut made east of the Mississippi River. In his letter he also makes kindly mention of the Crucible.
Should any of our readers know of a larger cut made east of the Mississippi, in the same time and with a mill running two bands and one resaw, the Crucible editor should be glad to learn of it. Mr. Knopf's letter follows:

"IT has been my intention for some time to express my appreciation of your very interesting little magazine. It has a double interest to me in that I spent practically twenty years in the lumber regions of Northwestern Pennsylvania. and there as a boy, I learned to pull a cross-cut and how to use the blunt nose of a bark-spud. Now I am kept by business in the city, and away from what is truly God's country. In the pages of the Crucible I have found much of interest, and many reminiscent thoughts.
"My father, who has spent his life in the lumber industry, has written me from Sheffield, Penna., about a big cut made at the Central Pennsylvania Lumber Co.'s hemlock mill located at that place. In a ten-hour run recently, this mill running two band and one resaw cut 327,077 bd. feet of one inch boards, and two and three inch joists. This is probably the largest cut made east of the Mississippi River by a mill of this size. Fred Harrington is the filer and he used Disston saws on the three mills.
"Yours truly,
C. M. KNOPF.'

## A Wood "Painting"

(Continued from Page 49)
ebony, thorn; bird, Zanzibar blue, thorn, ebony, red gum, tulip; flower bud of palmetto, and grain; leaves, wild coffee, laurel, thorn, satin and balsam. The cat tails are of amaranth and poplar; the boulder behind the dog is Circassian, lined with rosewood; tree beyond is of curly birch; leaves of vermilion and Hungarian ash family. The many other objects are just as ingeniously formed.

## Smokers Cause Forest Fires

Official reports show that 20 per cent of all the forest fires started by human agency in the National Forests of the United States during 1921 were caused by careless smokers. The total number of forest fires in the National Forests was 5,131 , of which 1,444 were caused by lightning, 732 by smokers and 2,955 by other human agencies.


Mullonomah Falls
Water precipated wow feet


## SAWDUST

A coal man says that some people who buy on time don't seem to know when time leaves off and eternity begins.-Exchange.

[^4]Absent-minded Father-We have a new baby at our house.

Friend-Well! Well! Girl?
Father-No!
Friend-Boy, huh!
Father-Yes, how did you know?
"After sending your son to college it must be disappointing to have him run off with a chorus girl."
"I should say it was disappointing." replied the old millionaire. "I expected to marry that little dame myself."

As they took their seats in the box at the theater, the doctor asked his wife: "Did you notice that lovely girl in the pretty fur cloak waiting in the lobby?",
"What," she replied, "that fussy thing with the false curls, rouged face, imitation mink fur and soiled gloves? No, I didn't notice her; why?"

A hired man was standing in front of Einstein's door as a funeral procession went by.
"Whose funeral?" he asked of Einstein.
"Chon Schmidts'," replied Einstein.
"John Smith," exclaimed the hired man. "You don't mean to say John Smith's dead?"
"Vell, py golly," said Einstein, "Vot you dink dey is doing mit him-bractising?"

Teacher-"What right have you to swear before me?"

Pupil-"How did I know you wanted to swear first?"

Why was Goliath surprised when the stone from David's sling hit him?

Because such a thing never entered his head before.

Nellie-"'Say, Jim, guess who's in the army?"
Jim-"Who?"
Nellie-"Soldiers." *
"Is vish I vas as religious as Sammy."
"For vy?"
"He clasps his hands so tight in prayer, he can't get them open ven the collection box comes aroundt."

The young couple were making their first long motor trip. They had blown out two tires, ruined their clothes in a sudden rainstorm, paid $\$ 10$ to get pulled out of the mud and then had lost their way. The husband got out with a flash light to inspect a signboard.
"Are we on the right road, dear?" called his wife.
"We sure are," he replied grimly, "but we didn't know it."

The sign read: "To the Poorhouse."

A society woman wrote to an army officer at Camp Dix:
"Mrs. John Sears De Ville requests the pleasure of Captain Smith's company at a reception on December 4."

The next day she received this note of acceptance:
"With the exception of fourteen men who, I regret to say, have a week each in the guardhouse, Captain Smith's company accepts with pleasure Mrs. De Ville's invitation for the fourth of December."

PRINTED IN U. S. A.

# DISSTON <br> A MAGAZINE FOR MILLMEN 

VOL XII.

## THE TYPEWRITER WAS INVENTED FIFTY YEARS AGO

(1)HE manufacture of the first practical typewriter began at Ilion, Herkimer County, New York, in the autumn of 1873. Christopher Latham Sholes was the inventor. Since then the typewriter has made itself an essential factor in modern life. Today eighty-four languages are written on the typewriter.

The Herkimer County Historical Society has published "The Story of the Typewriter". in commemoration of the fiftieth anniversary of the invention of the typewriting machine. In it are accounts of the early efforts made in producing typewriters, also photographs of the crude machines. The story is replete with interesting history of the machine which "has freed the world from pen slavery."

The inventor of the typewriter said: "I feel that I have done something for the women who have always had to work so hard. This will enable them more easily to earn a living."

Says the Story of the Typewriter: "The typewriter, like every great advance in human progress, came in the fullness of its own time. Looking back over the past, we can now see why it came when it did, and why it could not have come before. In the days when commerce was smaller, when writing tasks were fewer, when the ability to write or even to read was limited, when life itself was simpler, the world could get along after its own fashion without the writing machine. As education grew, as business grew, as the means for transportation grew, as all human activities grew, so the need grew, and it grew much faster than any real consciousness of the need, which seems always to be the way with our poor humanity. It is the fact which ex-
plains the struggle and frequently the tragedy in the early history of so many great inventions. They do not come in response to a demand, but in recognition of a need, and this recognition, in its early phases, is usually confined to the few. These few are the real pioneers of progress, and it is through their labors and struggles, often unappreciated and unrewarded, that humanity advances in all the civilized and useful art.
"It was even so with the writing


Statue to be erected to the memory of Christopher Latham Sk.oles

Sentry Tower, Cartagena, Colombia



Our Mr. Charles Heiss while on a recent trip to Cartagena, capitol of Bolivia, Colombia, South America, "snapped" the wall and tower shown above. He writes, "that it is part of an old wall and sentry tower built by the Spaniards in the 16th century. The tower overlooks the bay, and from it the Spanish sentry in 1585 saw the ships of Sir Francis Drake approach the city for the purpose of looting it.
"This is a picturesque spot. The border of the bay and inner lagoon is clothed with delicate tropical verdure, with the mountain for a background.
"The old city still shows the narrow streets of old Castile, but there is a newer city growing, modern in style. It has a tram system, sewerage, electric lights, etc."

A locust tree 18 feet in circumference one foot from the ground and 98 feet high has been located near McClellan Station, Pa. This is believed to be the largest locust tree in that state.

## Turkey Buys Scandinavian Lumber

Vice Consul Edwin A. Plitt, Constantinople, in a report to the Department of Commerce states that since the war the Scandinavian countries have taken the place of AustriaHungary in supplying Turkey with pine, fir and hardwood lumber. Prior to the world war, Rumania and Aus-tria-Hungary furnished large quantities of lumber to the Turkish market, the former upward of $21,000,000$ feet and the latter more than $19,000,000$ feet annually. Russia also has entered the Turkish market more recently.

Mr. Plitt states that until sawmills and means of transportation have been developed in Asiatic Turkey its large forests will furnish very little of the timber required for domestic consumption. There are no mills to speak of in Constantinople, millwork usually being made by hand on the building site.

## Natural Picture Frame

To go out into the woods and chop down a tree with a picture frame growing on it was one man's experience at Lake Forest, Ill. The frame as shown in

the accompanying photograph was found growing on an oak tree. It has not been altered in any way excepting that the bark was removed and the frame given a coat of varnish.

## DISSTON CRUCIBLE

## SEPTEMBER



SAWYER AT WORK IN BORNEO

## BetterWork



In the woodworking industry, the name Disston on saws, machine knives, tools, and files means better work. It stands for the finest, most serviceable steel and the same lasting service that have characterized Disston products for more than eighty years.

Remember-Disston Quality is always in demand and, as it takes time to produce such quality, it is well to anticipate your requirements and order in advance of your needs.

## HENR.Y DISSTON $\mathcal{E}$ SONS, Inc.

PHILADELPHIA, U.S.A.
Cincinnati Chicaso Seattle, Wash. Portland, Ore.
New York San Francisco Memphis, Tenn.
Bansor, Me. Boston, Mass. New Orleans Atlanta, Ga. Canadian Works: Toronto, Canada

Branch: Vancouver, B. C.


SAWS TOOLS FILES

## FROM THE LOOKOUT TOWER

Idle speculation attracts us these warm days. We're wondering if evolution will ever produce a self-starting thinker that will put the rest of us who comfortably "follow the leader" in the class of the $1 / 2$ of $1 \%$ who use their gray matter for thinking.

If you want to know whether you belong in the $1 / 2$ of $1 \%$ class, the next time you feel moved to express an opinion, see if you can tell why you hold it.

We were never a hero and consequently cannot speak with authority, but we have long had a theory that, given the occasion, nine men out of ten would rise to it. It's the dull, flat level of the day-by-day grind that assays the metal in a man and finally decides how many sincere mourners will attend his funeral.

The best companionship between father and son is the one that makes a man out of the boy and a kid out of the old man.

Scientists say now that a man can go on learning until he's ninety, and we can guarantee there are enough "ships and shoes and sealing wax and cabbages and kings" in the world to keep him busy that long. So, for heaven's sake, postpone the reminiscences until you're 89 years and ten months. Until then, it's all future.

This is the time of year when a man tries to crowd into two weeks all the fun of physical exercise he didn't get at the end of a snow shovel or with the handle of an ax the other fifty.

The difference between a pretty girl with lots of pep and dash and one of those flappers that are a disgrace to the nation, is in your own age.

The man who has never learned to use his hands in useful work is only half educated, no matter how many letters he writes after his
 name.

Which reminds us: There's a false idea which has gained considerable prevalence, and which we wish to correct. It's that happiness comes from things possessed. It doesn't. The only real thrill in life comes from something accomplished. We know. We once built a sleeping porch. Carpenters and men who knew said unkind things about it, but even our first dinner clothes didn't give us the thrill we got every time we looked at that porch.

If you're in a position of authority, don't worry about drawing up a lot of "Thou shalt not's." Just see that every fellow has a job which keeps him hustling all the time to stay abreast of it; then, give him an occasional pat on the back.

If everybody had a job that he liked and that kept him reasonably busy, there wouldn't be any need for the penal code.

Having settled that matter, we go further. We can't at the minute give Mr. Bok a guaranteed workable peace plan, but we bet two bits we could pick off-hand a half dozen hard headed business men, who, given a free hand and room to work in, could settle that matter of world peace in short order.

Don't worry about that blase, scornful gaze that seems to indicate such vast intellectual superiority. It's probably just a bad digestion. The people who are really intellectually superior are too busy to cultivate an air. More than that, they rarely talk like it, and never talk about it.

Out of all eternity this is the only minute you can call you own. Use it as such.

## WHAT IS MEANT BY "HARDWOODS" AND

 "SOFTWOODS"?

## These Woods are Botanically Known as the Angiosperm and Gymnosperm Groups

O definite degree of hardness divides the "hardwoods" from the "softwoods." In fact, the only absolute distinction which can be made between the two classes of wood has nothing to do with their hardness or softness. Theterms are simply one of several pairs of popular descriptive names in use for referring to trees of the two great groups, botanically known as the Angiosperms and the Gymnosperms.

The botanical distinction between these groups, which is that the seeds of the Angiosperms are enclosed in pericarps and the seeds of the Gymnosperms are exposed, is in itself of no commercial importance. But there are numerous general differences which make it necessary for wood users constantly to refer to Angiosperms and Gymnosperms by some name or other. Differences in structure, appearance, properties, size, and quality of the timber, and in regions of growth, keep the woods of the two groups more or less separated from the logging operation down through the manufacturing process to the ultimate use.

The terms "hardwoods" and "softwoods'" are the most generally accepted popular names for the two classes of trees, although they are perhaps the most misleading. It is true that many Angiosperms, such as oak, hickory, sugar maple, and black locust, are notably hard woods, and that many Gymnosperms, such as most pines and spruces, are rather soft woods. But there are a number of outstanding exceptions. Basswood, poplar, aspen, and cottonwood, which are all classified as hardwoods, are in reality among the softest of woods. Longleaf pine, on the
other hand, is about as hard as the average hardwood, although it is classified as a softwood. Yew, another socalled softwood, is about three times as hard as basswood and considerably harder than most oaks.

Another common name for the Gymnosperms is "conifers." This is more accurate than "softwoods," as all native Gymnosperms except the yew are cone-bearing trees.

Gymnosperms are sometimes spoken of as "the evergreens" and Angiosperms as "the deciduous trees," from the fact that most trees in the former group keep their foliage the year round and most of those in the latter group lose their leaves during the fall or winter months. The exceptions among the softwoods are bald cypress and tamarack, which have no leaves in winter. With hardwoods it is more or less a matter of climate. Many tropical hardwoods are green the year round.

The most accurate popular descriptions of the two groups are "trees with broad leaves," for the Angiosperms, and "trees with needles or with scale-like leaves," for the Gymnosperms. These are the definitions generally given by dictionaries for hardwoods and softwoods, or hardwoods and conifers. They divide woods almost exactly in accordance with the botanical grouping. The few Gymnosperms, such as the ginkgo, which have broad leaves, are not native to this country.

A difference in cellular structure which has been found to exist between the commercial Angiosperms and Gymnosperms is a very reliable means of distinguishing between the two groups, the hardwoods being called the porous and the softwoods the non-porous woods. The term "porous" refers to the presence of certain comparatively large open-end cells or pores in the wood, in addition to the small closed-end cells, or fibers. These large specialized cells are
(Continued on Page 63)

## Good Timber

The tree that never had to fight For sun and sky and air and light, That stood out in the open plain, And always got its share of rain, Never became a forest king But lived and died a scrubby thing. The man who never had to toil, Who never had to win his share, Of sun and sky and light and air, Never became a manly man But lived and died as he began. Good timber does not grow in ease; The stronger wind the tougher the trees. The farther sky the greater length, The more the storm the more the strength; By sun and cold, by rain and snows, In tree or man good timber grows.
Where thickest stands the forest growth We find the patriachs of both, And they hold converse with the stars Whose broken branches show the scars Of many winds and much of strifeThis is the common law of life.
-Anon

## 'SPEED WAGON PERFORMS AN UNUSUAL SERVICE"

(1)HE above caption recently appeared in the New York (Sunday) Herald, and then followed an account of how an owner of a certain motor car, Mr. E. B. Becker, of Cadillac, Michigan, evolved a scheme to take power from the front end of the crankshaft of his car by means of a short extension shaft which he attached to the main crankshaft end with a collar and set screws, and then clamped
which recommend it for sawing wood and other work approximating the belt strain on the front crankshaft bearing. The power plant alone is in motion, thus relieving all wear on transmission and rear axles. The car does not have to be jacked up as is the case when power is taken from the rear wheel, and the belt, running at right angles with the front wheels, does away with the necessity of blocking.


Obviously, cutting cordwcod by "speed-wagon" power is not a recent idea
a split pulley to the extension and connected it with the saw-rig pulley with a drive belt.

Mr. Becker uses his speed wagon for draying and long-distance hauling and the saw rig idea was thought out especially for his convenience in cutting his winter's supply of wood.

The picture above shows a Disston circular saw being driven by power from the rear axle of a car. A pulley is attached to one of the rear wheels, and a drive belt connects with the pulley on the saw mandril.

This experiment of using power from a motor car to drive a cordwood cut-ting-up machine was made a number of years ago, judging from the antiquated "flivver,"' on the Cottman farm, Philadelphia, several miles from the Disston Saw Works, and proved entirely satisfactory.
"The method of power drive as adapted by the Cadillac man" according to the vice-president of the Company which makes the particular car in question, "has several features

We will allow makers and users of cars to decide whether it pays to use power from motor cars to cut their cord wood, but we are of the opinion that little argument would be required to convince those who engage in cordwood cutting of the time and labor saved by the use of a power-driven saw. Farmers or others having wooded or timber land to clear find it profitable to supply nearby towns with cordwood when it can be produced rapidly and with slight labor cost. With one of our wood-sawing machines driven by automobile, gasoline engine or other power, this can be done at small expense and a minimum amount of labor.

In the teak wood forests of Burma, India, "Caterpillar" tractors are now used for logging work. Heretofore, elephants have been the principal means of transporting the logs in the Indian forests.

## Find California's Oldest Shingle

The oldest sawn shingle in California has been found. It was 74 years old and came from an adobe dwelling, erected by the Arrellanes family in 1849 on the Guadaloupe Rancho, near Santa Maria in Santa Barbara County. The building originally had a thatched roof of tule, but this was burned by General Fremont's soldiers, and then replaced by redwood sawn shingles.

This relic of the "Days of Gold" was submitted by W. L. Smith, manager of the Pacific Coast Coal Company of Santa Maria, who was awarded first prize in the state-wide contest conducted by Gus Russell, of the Santa Fe Lumber Company. The contest grew out of the fight to "save the shingle" at the election last November. A. D. McKinnon, proprietor of the McKinnon Lumber Yard of Hollister, won second prize. He sent in a redwood shingle from the McMahon home in San Juan, San Benito County. The house was built in 1852. McMahon
married one of the Breen girls, a survivor of the Donner Lake tragedy.

Many other very old redwood shingles were in competition. Among these was one from the house of General Mariano G. Vallejo in Sonoma.-West Coast Lumberman.

## What is Meant by "Hardwoods" and "Softwoods"?

(Continued from Page 60)
found in practically all Angiosperms, their function being to conduct sap from the roots to the leaves. The Gymnosperms have developed no pores for this purpose, but use their fibers to elevate sap.-Forest Products Labor-atory-U.S. Forest Service, Madison, Wis.

It does not make any difference what you want to do, there is a way to do it.

Six days every week, each filled with conscientious efforts, will win-Sales Sense.

## DISSTON WOOD-SAWING MACHINE NO. 1

## For Cutting Fire-wood

One of the most practical and efficient firewood-cutting machines, equipped for attachment to steam, water, or gasoline power, is the Disston Wood-Sawing Machine No. 1. It is portable, and built for service. The frame and table are made of hardwood. The saw arbor is made of cold-rolled steel, $1 \frac{7}{16}$ inches in diameter. The pulley is 6 inches in diameter. A balance wheel 20 inches in diameter is between the pulley and the frame. Stem of mandril to which the saw is secured is $13 / 8$ inches in diameter. Distance between balance wheel and saw is $421 / 2$ inches; weight, 275 lbs.; furnished with saws twenty-four or twen-ty-six inches in diameter.


[^5]
"How often does your road kill a man?" asked the salesman of the railroad conductor.
"Just once," sourly replied the man.
New Cook: "What do I say, ma'am, 'Dinner is served' or 'Dinner is ready'?'"
Mistress: "Well, if it is anything like it was yesterday, it would be simpler to say 'Dinner is spoiled'.'"

Patient: "There is an awful rumbling in my stomach, doctor, just like a wagon going over a street car track."

Doctor: "H'm! Probably it's that truck you ate last night."

The Professor: "Let us take the example of the busy ant. He is busy all the time. He works all day and every day. Then what happens?"

The Bright One: "He gets stepped on."

Teacher (to boy sitting idly in school during writing time): "Henry, why are you not writing?",

Henry: "I ain't got no pen."
Teacher: "Where's your grammar?"
Henry: "She's dead."
Johnny was learning the alphabet and was asked by his teacher what letter came after "H."
"I dunno."
"What have I on each side of my nose?"
"Freckles."
Mrs. Cohen was very popular. Cohen was blindly in love, but jealous enough to find cause to write to young Isaac Levy as follows:
"Dear Levy: You have been making love to my wife. Meet me in my office, 2 P. M., Jan. 31. Cohen."

Levy replied:
"Dear Cohen: Your circular letter received. I will be at the meeting you have called. Levy."
"Do you like girls with brown eyes?",
"No, I like girls with green-backs."
"You can't lick me," said the penny stamp as the post-mark struck him.

Mary-"I suppose your father will be all unstrung when he hears about your exams."

Jack-"No, I wired him last night." - Jester.
"The next person who interrupts the proceedings will be sent home," said the judge.
"Hurray!" said the prisoner.

Binks-I'll pay you when my shoes wear out.

Collector-What do you mean by that?

Binks-By that time I'll be on my feet again.-Wayside Tales.

This instance of what a mistake a comma can produce has been noticed:
"Lord Palmerston then entered upon his head, a white hat upon his feet, large but well-polished boots upon his brow, a dark cloud in his hand, his faithful walking stick in his eye, a dark, menacing glare saying nothing."

A traveler in Indiana noticed that a farmer was having trouble with his horse. It would start, go slowly for a short distance, and then stop again. Thereupon the farmer would have great difficulty in getting it started. Finally the traveler approached and asked, solicitously:
"Is your horse sick?"
"Not as I know of."
"Is he balky?"
"No. But he is so danged 'fraid I'll say whoa and he won't hear me, that he stops every once in a while to listen."
338.105


LOGGING IN INDIA

## The new circular saw The Disston Invincible <br> Patented April 13, 1920

A cooler, easier-running, faster-cutting saw. Examine this tooth-illustration full size notice the new patented improvements that explain why our new saw will produce more lumber on less power.


# DISSTON CRUCIBLE <br> A MAGAZINE FOR MILLMEN 

## DISSTON'S OPEN BRANCH AT ATLANTA GEORGIA

## To Give Better Service To Their Customers in the Southeastern Section of the U. S.

T1O better serve their customers, in the southeastern section of the United States, Henry Disston \& Sons, Inc., have opened a new branch at No. 130-132 Marietta Street, Atlanta, Georgia.

Besides offices there will be a show room where samples of Disston products will be displayed; and large space for stocks of cross-cut and one-man saws, circular and inserted tooth saws, gin, band, gang, drag saw, metal cutting and hack saws, files, etc. The branch will also have a completely equipped repair department in charge of Disston factorytrained workmen.

Mr. E. F. Cooper has been placed in charge of the new branch. Mr. Cooper is a practical man and has been interested all his life in the lumber and saw manufacturing industries. He has been with Henry Disston \& Sons, Inc., as a representative of the mill goods department, for eight years.

The industries of the South have made great progress during recent years, consequently the branch has become necessary to give proper service to customers in the Atlanta district.

This makes the fourteenth branch to be established by the Disston firm.
(Continued on Page 71)


Disston Branch, Atlanta, Ga.

# THELMAN FOREST PRODUCTS CO., Inc. 

 494 QUEEN STREET SAULT STE. MARIE, ONTARIOAugust 23, 1923.

## Henry Disston \& Sons, Inc., Toronto.

Gentlemen:
I have placed additional order today with your salesman, Mr. O. G. Kelly, for 25 more of your Buzz Saws which will fill our requirements for the next sixty days. I wish to add that we have tried out two other makes of saws since starting operations in Canada. After giving them a fair trial, found that they would not stand up to the requirements in the hardwood game. We placed a trial order with your company some time ago and will say in closing that they have proved very, very satisfactory.

Yours very truly,

E. A. Rell, Supt.

## A CRISP \$10.00 BILL

Now, folks, put your camera in good condition, polish your optics, and take a stroll through the nearest wood. Probably not far from your home is a crisp $\$ 10.00$ for you in the form of a freak tree. Click your camera, develop the film, and send the photograph to us. Should the competent judges appointed by the Disston Crúcible decide that your photo presents the freak of freak trees, you shall have the pleasue of placing the crisp $\$ 10.00$ bill in the inner folds of your mazuma wallet.
Other photos of unusual freak trees sent in under this offer, (which holds until the 15th of December, 1923) and which are suitable for use in the Crucible, will be paid for at market value.

Send all photos to Editor of Disston Crucible, Henry Disston \& Sons, Inc., Philadelphia, U. S. A., not later than December 15, 1923.


Something as freakish as this would bid strongly for our $\$ 10.00$ Bill

## FROM THE LOOKOUT TOWER

Phillips Brooks, that kindly savant, said once, "We talk of little things and big things, as though we knew what is little and what is big."

We don't, of course. A pin scratch may cause death. A smile or a sentence has been known to change the course of a life. But, one thing is certain: No man is truly great who despises anything, large or small. He is merely ignorant to that degree.

Some very brilliant men have failed, because they could not do team work.
matter what his color, creed or station in life, he gets more general satisfaction from giving than receiving.


Incidentally, it's a much more certain mark of your superiority if you give all you're worth than if you get all you're worth. It pays, too, in the long run.

You can, if you like, restrict your circle of friends to those technically known as"nice people," but, if you do, you are likely to miss lots of interesting ones. Besides you'll find, as you grow older that nearly everybody's nice, if you get just the right slant on them.

We think a good deal about money, and justly so. Some-times-by no means always-it's a convenient standard to measure the worth of a man's work; always, it's a comfortable possession. But it's merely an instrument, never an end in itself. If we forget this, we're due to be badly "done" by ourselves. In other words, the man who works and lives for money aloneif there be such a man-is being cheated out of about three-quarters of his just reward, and, usually he finds that money won't even buy him the poor fourth that's left.

If you want to attract attention the surest way to accomplish this is to do

If we needed a convincing proof that there is divinity latent in every man, it would be the fact that, no
something worthy of attention.

## THE OLD OR

## The Shortest and Quickest Route from the Ea



Ezra Meeker in his frontiersman togs.

VER since the dawn of history, mankind has been restless and has sought for new lands to discover and for new worlds to conquer, and ever the movement has been to the West," says the Old Oregon Trail Magazine, and "the last great migration, the greatest of them all occurred in the latter part of the Nineteenth Century when all of that country west of the Missouri was subjugated and the last frontier disappeared before the rush of the homeseeker and empire builder."

The history of the Old Oregon Trail, called by the Indians the "Big Medicine Road" starts with the enterprise of John Jacob Astor in sending out expeditions by land and sea to establish a fur trading post at the mouth of the Columbia and posts along the Columbia and Snake Rivers.

The expedition by sea reached the goal first and established Astoria in April, 1811.

The land expedition under Wilson Price Hunt arrived almost a year later after incredible hardships. This expedition first blazed the Old Oregon Trail.

For half a century the ownership of the "Oregon Country" (Oregon, Washington, Idaho, Western Montana and N. W. Wyoming) wavered in the balance between the United States and Great Britain.

Then came the expedition of 1843 , when the first wagon train reached the Willamette Valley from old Fort Hall, and the "Oregon Country" was saved to the United States.

For forty years the old Trail was extensively traveled by the fur trader,
the miner and the home seeker.
Then came the railroad and the Old Oregon Trail was almost forgotten. But the sentiment, the hardships, the tragedy and the romance of the Old Trail could not be forgotten and in 1906, Ezra Meeker, one who traversed the Trail in 1852, went back over the old route with an ox team and a prairie schooner from Puyallup, Washington, to Washington, D. C., marking the route with stone monuments through to the Missouri River. He is still alive


Map showing the $\mathbf{2 0 0 0}$ mile stretch of the Old Orego:
and active at the age of ninety-two and recently went to Washington, D. C., to meet with the Highway Committee of the U.S. Senate to try to have Congress recognize the Old Oregon Trail as a military highway.

The Old Oregon Trail is not merely a state highway, it passes across the length of four states and enters four others, making it interstate and transcontinental.

It is the most direct route from the east to the northwest coast. It is the most modern, it has the greatest variety of scenic grandeur, it passes through the most productive territory.

Every foot of the way of the Old Oregon Trail is sacred soil, made sacred by the lives that were lost on the way, made sacred by the blood that was shed, by the broken dreams and ambitions of those who carried on after

## EGONTRAIL

## t to the Pacific Coast-An Interstate Highway

having laid to rest the loved ones who fell by the way. It is a sacred heritage handed down to us by a brave ancestry to revere and cherish and perpetuate. Let us profit by the wisdom of King Solomon and let us have the "vision" to hand down to our posterity the history and romance of the Old Trail in a way that they cannot forget it. As the Burlington was building its line along the Platte, a crew of engineers stumbled upon a lonely little grave out in the sagebrush and across it was a


Trail-from the Missouri River to the Pacific Coast.
wagon-tire, rusted and crusted with time and on it rudely carved were these words "Rebecca Winters, age fifty years."
"Boys, said the leader, we'll turn aside, Here, close by the Trail, her grave shall stay,
For she came first in this desert wide,
Rebecca Winters holds right-of-way."
A touching bit of sentiment in a hard-boiled world. And so the line of a great railroad was turned to the West that she might lie in peace in the little grave she had occupied these many years, for she was one who came with the Mormon migration in 1847.


Meeker and his outfit on Trail-marking trip.


## THAT-

-Julius H. Barnes, president of the U. S. Chamber of Commerce, says ten productions have made records during the past few months. They are:
The largest pig iron production;
The largest cotton consumption;
The largest steel ingot production;
The largest crude oil production;
The largest automobile and truck production;
The largest residential construction;
The largest production of locomotives;
The largest volume of retail sales;
The largest volume of mail-order sales;
The largest volume of railroad car loadings.

Mr. Barnes also says:
"The population of the United States has increased fourteen millions of people, with their enlarged requirements.
"The annual national income has increased from thirty-four billion, to fifty billion.
"The aggregate savings deposits have increased from six billion to fourteen billion dollars.
"The deposits in national banks have increased from six billion to seventeen billion dollars."
-A Swedish scientist is the inventor of an artificial wood said to be superior to genuine timber. It can be finished as well as wood, will not deteriorate in water, is impervious to rot, and burns only at a temperature much higher than that required to ignite real wood.
-The amount of paper consumed in this country may be gleaned from the fact that Canada's export of paper, wood pulp, and pulp wood for May, having a value of $\$ 12,520,000$ was purchased almost entirely by the U.S.
-The Steamship Leviathan, owned by the United States Shipping Board, has a branch banking office for the convenience of its patrons.
-Roselake Lumber Company, Roselake, Idaho, is building nine miles of railroad in Pritchart Creek County.
-Cowlitz Development Company, composed of the Weyerhaeuser Timber Company and the Ostrander Railway and Timber Company, is pushing construction work on the extension of the line of the Ostrander Railway and Timber Company.
-Ohio Match Company, Spokane, Washington, is building 23 miles of railroad in the Burnt Cabin district, northeast of Coeur d'Alene, Idaho (P. O. Garwood, Idaho.)

Canada's buffalo herd at Wainwright, Alta., has increased to such proportions that it has been decided, by order in council, to dispose of 2000 head this fall. The animals will be shot on the range, and to A. S. Duclos of Edmonton has been given the contract in connection with the marketing at a rate of $11 / 8$ cents a pound.

Ninety thousand Americans a day, on the average, travel in Pullmans, and average a distance of 375 miles. There are 7665 Pullmans in service, and 211 new cars will be commissioned this autumn. During the record year of 1920 , four and a half times as many passengers used Pullmans as in 1901.

## Disston Atlanta Branch

(Continued from Page 65)
The others are located at Boston; Bangor, Me.; Cincinnati; Chicago; New York; Seattle; Portland, Ore.; San Francisco; Memphis; New Orleans; Toronto and Vancouver, B. C., Canada; and Sydney, Australia.

## Studied Forestry Abroad

Senator James Couzens, a member of the Senate select committee on reforestation, recently went to Europe, to study reforestation in Europe. He visited England, France and Germany.
"The last two countries," he said, "have done much in saving the forests for this and succeeding generations. In this country, there has been no great need for conservation until the present time, and now Congress is planning for the future generations."

## Few Forest Fires in Oregon

Forest fires in Oregon this year have thus far been held to a minimum not only on account of favorable weather conditions, but also because campers and tourists have been educated to take greater precautions to protect the forests, according to State Forester F. A. Elliott. While thus far there have been more than 100 fires, due to lightning and other causes, they have all been extinguished with very little damage done. A total of 346 patrolmen and lookouts hold state appointments this year, 198 federal forest wardens having been invested with state appointments in addition.

They brought the condemned man out on the gallows.
"Henry," said the sheriff, "have you anything to say?"
"Yes, sah. I'se got a few words to say. I merely wishes to state dat dis suttinly is goin' to be a lesson to me!"

## British Women Trained in Forestry

The Strathcona Gardening School has added to its estate, a well-timbered island in Huntsmoor Park, Bucks, England, where women are receiving practical training in the science of forestry.

PHOTO FROM UNDERWOOD \& UNDERWOOD


Girl students measuring the length and girth of a huge poplar which they iust felled.


Visitor-"There's no soup on the menu."
Waiter-"No, sir; I just dried it off."

There may be a timber shortage in some countries, but the Filipinos seem to feel that they have had too much Wood.-Southern Lumberman.

Perfectly well meaning old lady: "Thank you so much for your song, my dear. It took me back to my childhood days on my father's farm and when I shut my eyes and listened to your singing I seemed to hear the dear old gate creaking in the wind."Exchange.

One day in a club on Cordova Street, Vancouver, two old lumberjacks, after many years' separation, were about to crook their elbows, when one remarked to the other:
"Yust you work at Rock Bay?"
"I yust. Yust you?"
"I yust. I thought you yust."-Ex.

## ONE ON A POLICEMAN

The witness had just been severely reprimanded by the court for having called the officer a jackass.
"You mean to say that it is a misdemeanor to call a policeman a jackass?" asked the witness.
"It certainly is," was the answer.
"Is it any harm to call a jackass a policeman?" queried the witness again.
"None whatever," smiled the judge.
As the witness left, he turned and said to the policeman: "Good-bye, po-liceman!"-Yale Panel.

The man on the mill carriage usually gets attached to his dogs.
"My tYpust is oi hor vacution,
My trpist's awau fpr a week,
My trpudt us in hwr vacarion.
Wgile thse damu kews plsy hudge and seek.

Cjoras:
"Oy, breng boxk, bting bzek,
Brung becj mu bOnnie ti my, tp mr; B (\&ng b\$xj, b6nh, bicx,

Pjing bozk $\mathrm{m} \%$ beinino-o mx; Ch Helk?"


He: "I'm a little stiff from bowling."

She: "Where did you say you were from?"

## FOR EX-SERVICE MEN ONLY

On the other hand, there is the story of the dusky lady, narrated by Mac in the Rock Island Argus, who went into a drug-store and asked for one cent's worth of insect powder.
"But that isn't enough to wrap up," objected the drug clerk.
"Man," exclaimed the dark lady, "I ain't asked you to wrap it up. Jes' blow it down my back."-Chicago Erening Post.

A little boy was once overheard saying to his pet rabbit:-
"How much is seven times seven?"
There being no response from the rabbit, the boy said:-
"How much is four times four?"
Still there was no response.
"Now I will give you an easy one. How much is two times two?"
Still the rabbit refused to respond.
"Well, said the boy, "I knew father was fibbing when he said rabbits are the greatest multipliers in the world."

Cormmere $R . R$.

# DISSTON CRUCIBLE 



## BetterWork



Large,
open gullets that carry all of the saw.
More about

## the new <br> Disston Invincible Saw

Patented April 13, 1920

This new Disston Saw has been developed, after many years of work, by experts in our own factory cooperating with practical millmen, filers, and sawyers, to give certain needed advantages that make for faster, better cutting, and greater economy in operation. Many satisfied users of this new saw will endorse our statement that the saw will produce more lumber with less power, and is a cooler, easier running, faster cutting saw.

## HENRY DISSTON \& SONS, Inc. Philadelphia, U. S. A.

# DISSTON <br> A MAGAZINE FOR MILLMEN 

## THE COLLAPSE OF THE GERMAN MARK

(1)
HE Mark, erstwhile pride of the German monetary system, has gradually deteriorated until it no more has the confidence of the German people, nor of the financial world in general. As currency it is practically valueless.

Not long ago the mark was accepted at its face value the world over. It
halcyon days. Briefly, it was then part of the currency of a nation among nations whose industrious, thrifty, hardworking, honest people produced in art, manufacturing, agriculture, coal, iron, etc., its basic, sustaining equivalent.

How completely and sadly conditions have changed. But a few years ago the relative value of the mark in good,


Germany's 5000 Paper Mark
was one of the dominant factors in the establishment of the great German industries; to it is due the nation's territorial expansion; it developed science and art, built the German Navy, and gave the great German Army its demon power to kill and devastate.

Whence the power of the mark in its
old United States coin was $23^{4} / 5$ cents. Fifty million of them today would not tempt an American financier to part with one of his lumbering "cart wheels."

The "copper," Uncle Sam's lowly one-cent piece, commands profound respect when compared with the (Continucd on Page 78)

[^6]
## MILLER $\mathfrak{F}$ GORDON MANUFACTURING $C O$.

CARLETON<br>YARMOUTH COUNTY, N. S.

April 24th, 1923.
Henry Disston \& Sons
Toronto, Canada.
Gentleman:
We have your favor of the 19th instant regarding 24" circular saws. We are not in a position as yet to send you an order for these saws, but as soon as we need them we will forward you our order.

We know that "Disston" saws are good saws for we have proved this. The proof being that we are still running strong the same saws we purchased from you over two years ago, which saws have been continually at it every day since that time, and the remarkable feature about it is that they are running without cracks. Perhaps there are no band saws running on any Band Mill in the country which have as much work to do as the saws we have. We run two saws a day, changing at noon and night. These saws are cutting hard wood logs from 8 inches to 24 inches in diameter continually, and for the past winter we have had nearly five months when the logs were solid full of frost from the center of the heart to the outside bark, yet they have done their work without a murmur or letup.

The new saw we purchased from you some time last fall is certainly a bird, but we keep it in the rack and only use it when we have a hard day's run to get by with. These saws have cut through steel picks and stones without mishap and as stated are still going strong. We certainly can most cheerfully recommend your Band Saws for hard and continuous work with the minimum requirement of up-keep.

> Yours very truly, Miller \& Gordon Manufacturing Co.

By..R. D. Miller (signed)

[^7]
## FROM THE LOOKOUT TOWER

Truth is like cold water in summer time. Get over the first shrinking, and you'll revel in the comfort of it.

There's a perfectly good reason for most everything, even for the goshhanged, contrary stubbornness of Jones next door. The effort to find it is a fascinating study. Try it some time.
"Try to understand" is a pretty good rule with which to keep the wheels of life running smoothly.

Big achievements are goals ahead; little ones are steps to reach them. Don't slight the steps, but never lose sight of the goal.
so stands he and no outside considerations can add one iota to his stature.

We'regetting used to being told that the ancients had better roads, better buildings, better art and literature, even more advanced scientific attainments than we have. But it's a jolt to hear that they also had that supposedly exclusive product of modernity, so loudly denounced and secretly admired,-the flapper.

A small grievance throws a large shadow, but it's only a shadow. Laugh and you'll scare it away.

These daily small annoyances and difficulties are unpleasant. But what a duill, uninteresting level life would be if there were no hills to climb and days were all sunshine.

Happiness often depends on whether you look on living as a fascinating adventure or a necessary evil.

Have faith in the man inside you, no matter what other people may think. You know him better than they do.

Now comes Mr. Steinmetz with the prediction that by 2023, the working day will be but four hours long. Which gives us a regretful feeling that we were born 100 years too soon.

Still, there is balm in Gilead. Likely as not, with so much leisure on our hands, we'd have to listen to other people talk about themselves when we wanted to talk about ourself. A workless heaven never did appeal to us.

A man of sixty is the sum total of his own thoughts and actions. As they were good, bad, indifferent, or mixed


Don't make any mistake: every fine thing you do remains. No one may know about it, but they are sure to see the indelible mark it's left on you.

And that goes both ways.
Nature cannot jump into Summer without a Spring nor can it jump from Summer into Winter without a Fall.

Folks seem to have a notion that talk's cheap; it can cost reputation and friends; it can bring on a catastrophe; and, next to the pen, there is no mightier weapon.

French officials assert the German scientists have discovered a method of using strong radio waves to stop the motors of airplanes in flight and force the planes to land. France is reported greatly alarmed at the discovery.

Munich has a "weather clock" with a dial 20 feet in diameter on a tall tower, by which people miles away may read weather forecasts as indicated by the barometer. It tells the people what to expect during the day in the way of rain or shine, heat or cold.

## DISSTON CROSS-CUT SAW FELLS

## Was 114 Feet High; Five Feet Across at Butt; Cut into Seven Los

THERE are so many characteristics of a tree similar to those of a human being that the felling of one is often attended with a bit of pathos, especially if the tree has been a landmark or associated with memories of bygone days.

Potter County, Pennsylvania, had at one time one of the very finest of hemlock tracts. The giant recently reduced to lumber was the last of the "great family" of this tract. With its passing the curtain is drawn on great hemlocks in Potter County, at least so far as the coming many generations are concerned. It is quite possible that Potter County will never again boast of a great hemlock. Hence the residents, especially the older ones, have become meditative. To them the last member of a friendly family of stalwarts has gone forever.

This giant stood on the "Potter lot" in Allegheny County. It was 114 feet in height and five feet in diameter at the stump. According to its rings it was 375 years old. Seven logs, ranging in length from ten to sixteen feet were cut from it. By actual scale these logs contained a total of 4,920 board feet of fine lumber.

A Disston Cross-cut in the hands of skillful "executions" felled and dismembered this giant in record time.

Lyman's History and Eulogy

birth of the founder of Pennsylvania a tiny hemlock seedling pushed its head up to

Mr. Robert R. Lyma Company of Couders esting history of this

Hem the light of day and sent its tender root down toward the moisture of a small stream, later called the Allegheny. The little seedling survived the erosion of the soil, the danger of forest fires and the attacks of insects: it withstood the freezing of winter, the drought of summer, the deep shade of the woods, and later on in the fight for a place, conquered over a thousand of its kind, dominated them by its greater size, suppressed them by its shade and finally forced them down again to the soil where it fed upon their strength. Then a period of vigorous life began, during which time the white man arrived and the red man left, the wild life disappeared and the forest retreated before the cultivated field. For nearly four centuries this tree worked out its destiny and incidentally prepared itself for our use by adding to its volume an average growth of thirteen board feet per year. It reached maturity about

## 375-YEAR OLD GIANT HEMLOCK

## s, Ten to Sixteen Feet Long -Will Yield About 5,000 Board Feet

n , of Gray Chemical ort, Pa., writes interPotter County, Pa., ock.
one hundred years ago. Soon after the tip died and decay started at its heart, but it was still alive and quite sturdy when cut a few days ago.

Potter county has seen many hemlock trees both larger and older than this one, but both big and small are nearly gone now and the end is not far off. Only scattered clumps and isolated individuals remain here and there to mark the place where the world's finest stand of hemlock once stood. With their going, however, we should not be unmindful of the rich heritage they have left. Timber, with hemlock
in the lead, built our homes, paid for our farms and organized our towns. We owe it a debt which we will probably never repay, for as a lumber tree it is doomed to extinction. It cannot compete by natural reproduction with the hardwoods, neither can it compare with other species of softwoods for planting. We can but extol its virtues and think what a splendid tree the hemlock was: valuable lumber, pulp and chemicals in its body, tannic acids in its bark, rich oils in its needles, grace and beauty in its form. Justly is it called the most picturesque and beautiful of all the evergreens of the world and justly should its life be eulogized."


Characteristics of the Hemlock: The Hemlock, also known as Hemlock Spruce and Spruce Pine, can be distinguished by its flat linear needles with two longitudinal white streaks on the lower surface; the needles are jointed to short persistent woody stalks known as sterigmata and appear two-ranked, but in addition to the two conspicuous lateral rows there is a rather inconspicuous row of small needles on top of the twig extending in the same direction as the twig. The lateral twigs occur rather irregularly along the main branches and diverge from the latter at an angle of usually less than $75^{\circ}$. The cones are about $3 / 4$ of an inch long, and often persist through one winter.

Hemlock Wood: Non-porous; without resin passages; light, hard, not strong, brittle, coarse-grained, not durable, liable to splinter, difficult to work, light brown with lighter sapwood. Weighs 26.42 lbs. per cubic foot. Used for construction, coarse lumber, and especially for frame work and weather-boarding of buildings, paper pulp, and laths.

Hemlock Bark: Grayish-brown to reddish-brown, rich in tannin, becoming $4 / 5$ of an inch thick on old trunks and roughened by long fissures separating rather broad ridges which are covered with close scales. Inner bark is cinnamon-red.


## RED CROSS FIRST AID

## PreservesLife, Prevents Deformity.-1923Roll Call, Nov. 11 to 29

A Pennsylvanian, Vernon Enos, an electrician of Connellsville, was given a $\$ 50.00$ prize in recognition of his bravery in saving the life of a fellow electrician, Edward L. Miller, who had
come in contact with 6,600 volts, rendering him unconscious, and burning him badly on the legs and skull.

Had it not been for Enos' first-aid knowledge, the accident would have no doubt proved fatal.


Instructions in First Aid methods is an important part of the peace program of the Red Cross. More people are killed by accident in one year in the United States than by cancer, and this fact is recognized by the 5,000 who last year made First Aid instruction a part of their training. So great has been the interest in these courses that managers of factories and industrial plants have taken up the work and are giving the course to their employes. Schools have also enthusiastic First Aid classes.

If you are not really a member of a class, ask your nearest Red Cross chapter to enroll you. And help others to join by answering the Seventh Roll Call to be held November 11th to 29th, with your dollar membership fee and the moral support of your signature.

## The Collapse of the German Mark

(Continued from first page)
purchasing value of the German mark.

Hundreds of thousands of splendid German people are experiencing humiliation and hardships as a result of the Mark's collapse, with no hope of redress, and no indications of improved conditions.

Recently five trillion, five hundred
billion paper marks composed the cargo of a German aeroplane. The crew were of the opinion that they were carrying mail and newspapers. It seems the consensus of opinion that little attempt will be made to redeem the tremendous number of marks which are in circulation, so most likely out of this chaotic condition a new currency will evolve to replace these veritable "scraps of paper" and again bring confidence and stability to the German nation, and profitable business relations with the outside world.

## Sold-15,000 Acres Southern Pine

For a price given out as "close to $\$ 1,500,000$," the Tatum Lumber Company, of Hattiesburg, Miss., has just purchased $150,000,000$ feet of virgin pine in a 15,000 -acre block in Green county, Mississippi, known as the Watson timber. It lies adjacent to the Beaumont and McLain Branches of the Gulf, Mobile \& Northern railroad.

The timber, said to be one of the most magnificent tracts of Southern pine in existence, was bought of the stockholders of the Frederick Lumber Company. The deal gives the timber to the Tatum Company with protection on cutting rights covered by two leases aggregating 55 years in duration and divided so that the rights may be surrendered at the expiration of the first lease or may be continued through the fifty-five year term if that period is required to complete the cutting operations.
-Southern Lumberman

## U. S. Owns 1916 Acres Sequoia Trees

Though it is customary to look upon America as being young in nearly everything, she none the less possesses the oldest living things in the world the giant sequoia trees of California, some of which were already venerable when the Christian era began. They were flourishing before Greece appeared in history, and date back to those days when Babylonia was in its glory. It is gratifying, therefore, to learn that through the co-operation of the Government, the National Geographic Society and private enterprise 1916 acres, embracing the finest specimens of these magnificent trees, have been secured for Uncle Sam and will be safe for many centuries to come. One of these giants, 325 feet high, is said to be the tallest tree in the world. Another monster is 93 feet in circumference at the ground. Their acquisition by the Government is an especially com-
mendable bit of conservation.-Ex.

## Shantymen's Christian Association Work Grows

The Shantymen's Christian Association, 15 Toronto St., Toronto, has begun the publication of a monthly, magazine called "The Shantyman." The editor of this bright and readable little paper is Willian Henderson, of Toronto, who is the aggressive and widely known superintendent of the Association. The first issue contains encouraging references to the progress and expansion of the work and the experiences of a number of missionaries in various parts of Canada and the United States.

The movement is financed by voluntary contributions from friends of the good cause, which is undenominational in character and control and has developed rapidly in interest, importance and influence during recent years.

All arguing with a mule should be done face to face.

Speaking of the watch on the Rhine, it's a hunting case but doesn't seem to be gold filled.-Shanghai Weekly Review.

## Forestry and Its Progress in Japan

Japan, according to an official bulletin recently issued by the bureau of forestry, Department of Agriculture and Commerce, at Tokyo, is richer in relative area of forests to total area than America or any European country. There are $109,992,128$ acres of land covered with forests. The complete area of Japan is $170,725,000$ acres. Thus, 65 per cent of this entire country is in forests. Ownership of land is divided into five heads. The crown, or the imperial household, owns $3,463,280$ acres; the state possesses $57,878,450$ acres; the public, $11,176,020$ acres; shrines and temples, 314,742 acres, and private ownership has 38 ,383,965 acres.

"Saw teeth sharpened or extracted painlessly" appears on a placard in the filing room of a well known box factory.

Agent: "When are you going to pay for that sewing machine I sold you "

Mrs. Sweetie: "Pay for it? Why, you said that in a short time it would pay for itself!"
"I can't stay long," said the chairman of the committee from the colored church. "I just came to see if yo' wouldn't join de mission band."
"Fo' de lan' sake, honey," replied the old mammy, "doan' come to me. I can't even play a moufh organ."

> -Lippincott's

Harold:" Mother, won't you give me five cents for a poor man who is crying out in front ?"

Mother:"Yes, my son, here it is; and you are a good boy to think of it. Poor man! What is he crying about?"
Harold: "He's crying: 'Fresh roasted peanuts. Five cents a bag.' "


Teacher-"If coal sells for $\$ 10$ a ton and you order $\$ 50$ worth, how many tons will you get?"

Tommy-"Alittleover four tons."

Teacher-"Why, Tommy,that's notright.'

Tommy-"I know it's not right, but that's what

What we would like to see is a real cure for baldness that can't get pushed over on one ear when you take your hat off.

How yo' all getting along with yo' 'rithmetic, Sam?

Well, I don' learned to add the aughts alright, but de figgers bother me a lot.

Two boys from New York's East Side were discussing capital punishment. "They're not hangin' em any more now," said one; "they're killin' 'em with elocution."
"I have generally found that short words are the best to use."
"Just so," said the henpecked husband, "and thin words-the kind you can get in edgewise."

A farmer boy and his best girl were seated in a buggy one evening in town watching the people pass. Near by was a popcorn vender's stand. Presently the lady remarked: "My! that popcorn smells good!"
"That's right," said the gallant. "I'll drive up a little closer so you can smell it better."-Everbody's Magazine.
they will give you." <br> > WE DON'T KNOW, DO YOU? <br> \section*{WE DON'T KNOW, <br> \section*{WE DON'T KNOW, DO YOU?} DO YOU?}

Where can a man buy a cap for his knee, Or a key for a lock of his hair?
Can his eyes be called an academy Because there are pupils there?
In the crown of his head, what gems are found?
Who travels the bridge of his nose? Can he use, when shingling the roof of his mouth
The nails in the end of his toes?
Can the crook of his elbow be sent to jail? And if so, what did he do?
How does he sharpen his shoulder blades?
I'll be hanged if I know, do you?
-Telegraph World.


Commence $T . \pi$.

# DISSTON CRUCIBLE 

## DECEMBER




## DISSTON <br> A MAGAZINE FOR MILLMEN

| VOL XII. $\quad$ DECEMBER, 1923 | No. 11 |
| :--- | :---: | :---: |



> The Cfristmas season is at band. flay it bring to ebery reader of the Crucible, bappiness, goodmill, and abundance.

NINETEEN TWENTY-THREE has been a prosperous year throughout the United States and also in other timber sections of the world.

The continued heavy demand for lumber caused activity in lumber camps and mills providing steady employment to the satisfaction and liberal remuneration of lumbermen and millmen.

With happy hearts and sturdy brawn, these knights of mill and forest reduced giant trees to lumber to the cadences of bands and discs of steel that inspired to greater effort and eliminated drudgery from their labor.

Beethoven, Wagner and their ilk never wrote a classic more fascinating to them than the symphony of the band, circular and cross-cut saws, under their skillful manipulation, with the forests for audience and hill and mountain for sounding board.

The world owes much to millmen and lumbermen for its comfort and convenience. They brave the elements and encounter danger to accomplish their tasks. They are worthy of a joyous Christmas Season.

Many of them will be far from home, but may Old Kris be generous, and may the camp cook prepare a meal that will taste as good as if made by mother, wife or sweetheart.

And when the meal is over, and the pipe is lit. And the smoke forms ringlets to amuse a bit, And as the cards are dealt for a friendly game, And the concertina "hits" a catchy strain-

May these men remember that the firm of Disston wish them, and all the rest of their craft, all the joys of the Holiday season.

## A VERY INTERESTING PLACE TO WORK <br> Manufacturing Lath in Far-off Manitoba


it takes a fairly sturdy individual to work barehanded tying lath out of doors in such cold weather. So when we wrote to Mr. Gibson to thank him for what he had said about Disston Saws, we asked him to tell us something about the country in which he

So we have a letter, telling us about the country, and one picture showing part of the mill, the other the young folks enjoying an outing.

The mill is on the Whitemouth River near its junction with the Birch River. Mr. Gibson tells us "the Whitemouth River and its tributary, the Birch
and during ten day spells when the thermometer registered from 20 to 35 degrees below zero. The saws stood the test as if cutting cheese. You certainly have tempering down to a science.
"The writer's son was in from the lath mill and in talking over your bolter saws, he stated that they would walk through $6^{\prime \prime}$ and $8^{\prime \prime}$ thick lath cants without showing any more difference than if running empty. We are pleased with them.
"By the way, we have a lath tier who worked bare-handed and piled his lath outside when the temperature was from 20 to 30 degrees below zero all the time."
"Yours truly,"
"THOMAS GIBSON \& SONS."

Now, we have lived and worked in a country where the thermometer went down to 20 or 30 degreesbelow zero on occasions. We know, from experience, that


## FROM THE LOOKOUT TOWER $\sim$

People everywhere and all the time these days seem to be talking about "campaign issues," and "to be or not to be-dry" and what are Mr. Coolidge's principles, etc., etc. We can't get much het up about any of these, but we'd love to know if anyone in the near future expects to write a song which will let us forget the one about the deplorable shortage in bananas.
sift the ton of advice you receive for the grain it will pay you to follow.

As we have be-
 fore remarked, work is an excellent and necessary thing. But like all good things, it can be abused. Don't keep your nose so close to the grindstone you cannot see the stars.

Eight hundred times in the Bible we are told to smile. The sages of biblical times considered a smile to be of some value to an individual. Today a smile is quite as big an asset as it ever was. We have a suspicion that the chap who placed the placard in his office, bearing the inscription, "Smile, damn you, smile," had been reading the Good Book.

A certain very clever editor of a house organ which we read regularly deprecates the lack of what he calls a "golden mean" in America. This causes us to smile. People speak of a "golden mean" and condemn radicals and extremists for theoristic views-and rightly so. Then, another generation comes and the radical views have become conservative, and folks condemn other radicals. All of which is as it should be. There must always be radicals for progress. There must always be conservatives for solidity. Each seeing that the other does not rule the country, establishes a "golden mean," and American civilization is still safe.

It's easy, of course, to give advice; hard and "agin human nature" to take it. But the hardest thing of all is to


> Pray that the years and affairs may never so cover up the child in you that he does not come out at Christmas. If this should happen your state would be sad indeed.

We don't know of any waste comparable to the waste of time, nervous energy and friendship entailed by futile argument. It's like war in that it never proves anything, never convinces anybody, and leaves all parties with a very definite sense of dissatisfaction. If the other fellow doesn't agree with you, better leave time to teach him.

The weakest arguments are oftenest the hardest to combat; they are so backed up by prejudice and superstition.

Don't waste anger on trivial things. If you do, it will have lost its effect when you try to use it on big ones, and, conserved for something worth while, it's a wonderful weapon.

Here in America we must try to remember that noise isn't necessarily or in fact often patriotism. And, by the same token, it is not American to try and impose your own private views on all the rest of the country. When you come down to it, there's no very good reason why they haven't an equal right to impose theirs on you.

## LONGVIEW, WASHINGTON-A COM

©FEW years ago, The Long-Bell Lumber Company, which for almost fifty years hasbeen engaged in the lumber business in the south and middle west, decided to extend its interests to the Douglas fir region of the Pacific Northwest.

After considerable investigation, a large body of timber in Cowlitz and


A view in St. Helens, addition, Longview, Washington.

Lewis counties, Washington, was purchased. The timber lies about fifteen miles north of the Columbia River.

Following the timber purchase, an investigation was made of possible locations for lumber manufacturing plants which would have tide-water as well as railroad facilities. The site selected is on a peninsula formed by the junction of the Cowlitz and Columbia Rivers fifty miles inland from

Being Built By The Lon§
On a site of 14,000 acres, $\mathbf{2 , 0 0 c}$ the company's great timbr When completed, w
the Pacific Ocean, fifty miles in a northwesterly direction from Portland, and 133 miles south of Seattle, Wash.

This land that, last summer and for many other summers, was used for dairying and agricultural purposes has beentransformed in the last year; and where orchards bloomed and cattle grazed, miles of streets have been graded and are being paved. Upwards of three hundred modern residences have been built and are being occupied, and fifty more are under construction.


View of Hotel Monticello, Lor over a portion of

The Hotel Monticello, an imposing 200 -room, fireproof structure, modern in every respect, was opened to the public on July 15, 1923.


View showing construction of building to house part of the first unit of the big fir lumber manufac height of this building can be gained by compi

## PLETE CITY, PLANNED IN DETAIL

## -Bell Lumber Company

## acres of which is occupied by r manufacturing plantsil employ 4000 men

Two banks which have been operating in temporary quarters since May, have established themselves in permanent homes in the business district.

The first unit of a large school building is being used daily by Longview school children.

The Community Y Building, a handsome brickstructure of English design with a large auditorium, swimming pool, gymnasium, lounge and recreation features, was dedicated last October.
"A large body of land was necessarily acquired for our operations," said R.
A. Long, founder of the Long-Bell Lumber Co. and chairman of its board of directors, "and the


[^8] ring it with the horses shown at the right.


A general layout of the entirc Longview development, including the manufacturing plants of The Long-Bell Lumber Company. This layout is intended to show in a general way the relation of the various parts of the townsite to each other, and the trunk thoroughfares from the civic center to the Union Station, the Columbia River and the outlets to the West.
together with the many persons required to serve suchacommunity, a conservative estimate of the population of the new city within a very short time is 20,000 people.

The primary units of the lumbermanufacturing plants will be two fir saw mills served by a 24 -acre log pond, which isconnected by a canal with a larger pond of 126 acres. The latter pond is connected by a canal with an arm of the Columbia River, containing about 75 acres, which will be used also as a log pond.

Other features of the Long-Bell
great lumber manufacturing plants, which when completed will have an annual capacity of between 400 million and 500 million feet of finished lumber products. The latter figure is practically equivalent to the total production of eleven saw mills now operated by this company.

It is estimated by the Long-Bell Company that an operation as large as the one planned when completed will in itself employ the services of between 3,000 and 4,000 men. Counting those employees and their families,
operations will be a cedar and hemlock mill, sash and door factory and veneer plant.

The lumber manufacturing plants will be electrically driven. Separate docks for vessels and freight cars will be built. Lumber and timbers cut for export will be stored apart from products designed for domestic markets. Hand labor and trucking will be practically eliminated by the use of overhead cranes and monorail trolleys, which will handle the products in "packages."

# An Interesting Place To Work 

(Continued from page 82)
"The pictures were taken on Labor Day, when the writer's daughter and some friends joined the Gibson boys at the mill for a holiday. They had the time of their lives they said. To the delight of the girls, the boys started up
the mill and permitted them to "man" the bolter, stripper, and trimmer saws, and manufacture a few bunches of lath."

To us, here in our office in the city, it seems that the folks at the Gibson mill have almost an ideal place to spend their working hours.

We wonder how many other readers of the "Crucible" have such beautiful surroundings for their work.


## YES, WE'LL HAVE NO DULL MOMENTS NOW!

## Picture Puzzles to Engage Your Spare Time

## Each Picture Represents Some Part of a Saw Mill

Here are some picture puzzles to $\uparrow$ flavor is specified. That's us! When solve. We intend running a series of we do anything, it's done according to them for several months at least. After that we will be governed by your interest in them. We are not offering any prize for correct answers. Our experience in the past has been that interest is so keen in contests, of a puzzle nature, that it requires too much time to take proper care of the numerous answers.

If anyone should insist on a prize we might compromise, however, on a lollypop. But be it understood, once and for all, that no lollypop goes out to any one unless the favorite


Munch these "nuts" with your mental molars


They will make them keen and strong.


Hoyle.
Now, then, since the "prize" point is settled, we arise to say that the answers to the puzzles will appear in the following issue of the Crucible, right under the new puzzle pictures.

If the puzzles appeal to you, let us know, if they do not-let us know. We will insert something in their place that will please you.

Now, we're off! May every one solve every puzzle correctly.
Many will be compensated for their efforts by learning more about saw mills.


"A clock is the only thing we know of that keeps on working after it has struck."
"Why does a hen lay eggs only in the day time?"
"Because she's a rooster at night."
"Marjorie would often take her eyes from the deck and cast them far out to sea." As a caster, old Ike Walton had nothing on Margie, believe us!

Bo-"'You look sick. What's the trouble?" Jo-"Oh. I caught cold riding a draft horse."

Customer-"It's tough to pay fifty cents a pound for meat."
Butcher-"Yes, but it's tougher when you pay twenty-five." Puppet.
"Bill," said a sailor looking up from his writing "do you spell 'sense' with a "c' or a 's'?'
"That depends," replied his friend, 'Do you refer to money or brains?'"
"Aw, I don't mean either of them two," was the reply. "What I want to write is, 'I ain't seen him sense'."

Little Willie-"I don't want to go to that d-n school any more!"

Father (who is a bricklayer)-"Why, Willie, where did you ever learn such a word as that?"
L. W.-"Why William Shakespeare uses words like that."

Father-"'Well,, then, quit runnin' around with him"
"Judge," said the prisoner, "I'm
"That may be," said the judge, "but you'll get your hearing in the morning."-Ex.

Jack-"What kind of fellow is Blinks?"'

Bill-"Well, he is one of those fellows who always grab the stool when there is a piano to be moved."

Take a card, place it in an upright position with edge resting on line between cage and bird. Bring your face down so point of nose rests on top edge of card; focus one eye on cage, the other on the bird; and presently bird will be in the cage.


A certain little boy had long expressed a wish for a baby brother, His mother finally advised him to ask God for one. He adopted the suggestion, and nightly asked God for a baby brother. After a time he became discouraged and announced that he should pray for one no longer.

On Christmas morning his father took him to his mother's room, where two new baby brothers were awaiting his inspection. His first comment was: "Gee, Dad, isn't it lucky I stopped praying when I did?"

Simpkins considered himself a humorist. He sent a selection of his original jokes to the editor of a newspaper and confidently awaited a remittance. His excitement ran high when he received a letter, obviously from the newspaper office.
He opened it with feverish haste. There was no check, however, just a small note, as follows:
"Dear Sir-Your jokes received. Some we have seen before; some we have not seen yet."-Vancouver Province.

### 338.105 Commexce $\pi . \pi$. DI

# DISSTON CRUCIBLE 

## JANUARY




# DISSTON CRUCIBLE <br> A MAGAZINE FOR MILLMEN 

VOL XII.
JANUARY, 1924
No. 12

## A HAPPY NEW YEAR-

# For Some Folks Will Depend on the Practice of "Safety First" by Themselves or Their Fellows 

WE sincerely wish that the new year will bring health, happiness, and prosperity to all the readers of the Crucible, and this article is intended as an earnest of our wish.

The picture on this page and the touching appeal beneath it is not an outburst of sentimentalism. We might have used the hackneyed sign- "Stop, Look, and Listen," or the skull and cross-bones or a grim skeleton stretching forth his bony arm. Any one of which would have served the purpose, viz: to attract attention, arouse interest, and induce sober thought, but probably not so effectively

Along the city streets, and country highways; in the factory, in the woods -everywhere, we see signs:
"Safety First" "Warning" "Go Slow", "Caution" "Be Careful"


- and Please Keep Daddy
"Cross the Street at Crossings"
"Don't Rock the Boat"
"Sharp Curve Ahead"
"Don't Take a Chance"
Etc., etc., etc.
State, county and municipal legislative bodies pass laws to protect health, limb and life. Newspapers and magazines are continually sounding notes of warning. Yet, notwithstanding, many, many persons are annually killed and many others injured.

The little girl at mother's knee could have quite appropriately included mother in her petition, for last year there were 100,000 accidental deaths in the home, to say nothing of slight and serious injuries.

Why, with all this effort to prevent, are there so many fatalities; so many injuries?
Cont. Page 94

## EL ARBOL DE LA NOCHE TRISTE

## (The Tree of the Sorrowful Night)

PROF. and Mrs. F. W. Porter, both of York, Pa., high school faculty, while touring Mexico last summer, visited the famous "Tree of the Sorrowful Night." They "snapped" the tree, as illustrated here, and wrote the following history connected with it for the exclusive use of the Crucible:

This tree is noted in both Spanish and Mexican history, as it is connected authentically with the conqueror, Cortes, 1520. The tree is over 403 years old. Its story briefly told belongs to the closing days of the great Aztec Empire.

The capital, Tenochtitlan, (now Mexico City) stood on islands in the heart of a series of great lakes. Three great causeways led from the city to the mainland. One of thesetothe west and south led to Tacuba, one of the city's suburbs.

The Spanish army in the city had come to the end of its resources; it was obliged to flee from the city. In the dead of the night the army quietly left its barracks and marched out the Tecuban causeway. At the first canal cross-
ing they placed a temporary bridge and crossed safely. Meanwhile, the Aztecs had been alarmed and in great numbers hurried to attack the retreating Spaniards and they attacked fearlessly. At the second canal the Spaniards were compelled to throw in their baggage, cannon, etc., in order to go on; when they came to the third canal the fight was terrible. Both sides lost tremendously, only a portion of the Spanish force escaping. Under the tree Cortes sat and weptashewatched the remnant of his army pass by.

A year later the city fell to the reinforcedSpanish army and so ended the empire of Montezuma.

The tree is a species of the Mexican cypress -there are many in Mexico. In the forest of Chapultepec stands a great tree, 47 feet in circumference.

In the Tule Valley between Oaxaca and the ruins of ancient Mitla stands what is probably the greatest as well as oldest tree in the world, also of the cypress family, a tree 167 feet in circumference, so large that 27 men with outstretched arms can just surround it.

## Forest Service Income Mounts

So much has been said about the necessity for increased funds for forest protection that the public is likely to lose sight of the fact that the national forest resources turn back into the public treasury quite a tidy sum every year, it is pointed out in a statement
by the Department of Agriculture. Receipts from national forest resources, last year, according to the tabulation just completed, amount to $\$ 5,335,818$, breaking all previous records.

Schools and roads in the counties containing national forest lands will benefit largely from the increased income.

## FROM THE LOOKOUT TOWEPT

As we pass along through life, we are constantly getting jolts which jar our pet notions. One of the things which astonishes, is that the men we see doing big things are not the boys who were prize scholars,-the ones who were brilliantly gifted. They're just the average fellows who got into something or other and worked hard at it.

Most of us when we leave school think we've stopped learning, and along comes School Mistress Life with the rod of Experience to teach us we have not yet begun to learn.
folly lies in our own ignorance of a wise man's vision.

Here in America, we've got to lose
 the idea that if a boy has good table manners, probably he won't amount to much. Good manners are not an indication of weakness; they're just the decorations which make the world a pleasanter place to live in. And habitual bad manners are as great a drawback to an individual as a physical imperfection.


Skating is like life. As long as the ice is smooth, we can glide along beautifully and think ourselves very good performers indeed, but it's only in the rough stretches that real skill shows.

There is a saying, "Water will find its own level." People use it when they mean that a person can rise only as high as his environment and native ability will allow. But water will rise above its level with the aid of a pump. And, by the same token, it's a little difficult to limit the height to which a human being can rise, if he has the lever of ambition and work.

You will never know your strength unless you also know your weakness. They run parallel with each other. The best plan is to know your weakness but concentrate on your strength until it is so far developed that you can forget the weakness.

Success is doing some one thing better than anyone else. Success is making a valiant effort to realize your dreams-whether you actually realize them or not. Success is the feeling of a good job, honestly done, whether the job be digging a ditch, filing a saw, or writing a book.

So many great men were called fools in their time, we sort of hesitate to put that label on anybody. Sometimes the

A man is a good deal like steel in some ways. He ought to be strong and keen tempered; flexible enough to bend but too strong to be broken easily; tough enough to stand hard use, and free from physical defects.

Modesty with regard to personal qualifications is not always a virtue. If you can do a thing, say so; but be sure you can do it. There's a terrific back kick from falling down on a billed performance.

The judgment of the man on the street is often in the long run proved correct. That's the eternal puzzle of the proverbial "highbrow."

With the widespread use of automobiles, steam heat and other luxuries, they say our people are becoming soft and adventure is departing from life. What's the answer. We wonder if a definite ideal of saving wouldn't help. Saving is a strenuous virtue. Going without something which you have the money in hand to buy can become almost heroism, and there's considerable adventure in adding in that way to a fund that is going to give you some substantial, coveted possession.

## THE FRANK PURGELL WALNUT LUMBER CO. of Kansas City, Kansas

Use Disston Saws, exclusively, in their mill



O doubt some of our readers will be surprised to learn that on the Kaw River at 12th Street, Kansas City, Kansas, there is a millwhich saws Walnut lumber exclusively.
There seems to be a prevailing opinion that the once common and plentiful walnut treehasbecomesoscarce that there are not enough of them within a sufficiently concentrated radius to keep a saw mill operating to advantage for any considerable length of time.

The fact that the United States government combed the country, during the recent war for walnut lumber from which to make gun stocks seems to have verified this opinion.

However, in this one instance, at least, there is an honest-to-goodness saw mill in which walnut lumber, exclusively, is sawed, and it has been operated successfully by the Frank Purcell Lumber Company since July 1919, with the exception of eight
months during 1921, and it is a $100-$ per cent Disston mill so far as the saws in use in it are concerned.
The firm hasenjoyed a prosperous, ever increasing business, which excites little wonder when its personnel is known Frank Purcell,

President
D. H. Shelby,

Vice-President Geo.S.Shanklin, Vice-President and General Manager Frank J. Purcell, Secretary and Treasurer Each one of these men is thoroughly acquainted with the lumber business, and particularlyadapted to
 his respective office.

## Mr. W. J.

Shepard, the superintendent, is familiar with the manufacture of lumber in all its phases, having spent his entire working life along this line. Previous to his
(Continued on Page 95)


The Frank Purcell Walnut Lumb

# THE OLD WASHINGTON ELM 

## Yields to The Elements-Several 'Scions' Left to Perpetuate Famous Tree's Memory

(1)AST October another link which connected the present with the birth of the Nation was broken. This time it was the Old Washington Elm in Cambridge, Mass., dear to every American.

The famous land mark had stood for several centuries near the northeast corner of the Cambridge Common.

While workmen were pruning its branches therootssnapped and the huge trunk crashed down across Huron Avenue.

This elm assumed an important place in thehistory of the United States on July 3, 1775. On that day it is related that at 9 o'clock in the morning, Washington accompanied by the general officers of the army who were present, proceeded on foot from the quarters of the Commander-in-

## Elm'" Excerpts

ell Lowell
In
ifisht in the wood ur could not overwhelm dour rough-hewn helm:-
man,
lat summer morn,
at Virginian
-e fatal Hash
wherent clash
iizing them
itant stem,
wotion rash.


Chief to a great elm tree at the north of Cambridge Common, near which the Republican forces were drawn up in


Inscription on Elm tree tablet-Prepared by Longfellow.
proper order, and "under the shadow of that wide spreading tree Washington stepped forward a few paces, made some appropriate remarks, drew his sword, and formally assumed command of the army."

The Washington Elm had long been a shrine for tourists. Against it stood a tablet bearing the inscription prepared by Longfellow: "Under this tree Washington took command of the American On the hundredth anniversary of Russell ous poem,

## A Happy New Year-

(Continued from Page 89)
The answer in the great majority of cases, is-

> Thoughtlessness, Carelessness, Recklessness, Selfishness,
all of which causes are remedial if people would only think! Think of the resultant consequences before they act.

The Department of Labor and Industry, which has jurisdiction over safety work, in the State of Washington is applying what seems to be a sane, practical means of reducing accidents in the logging industry. They have made a study of the causes of logging accidents and published them in detail, with a view of preventing similar ones. This study is based on the records of 582 cases, or approximately 90 per cent of accidents in the logging industry during the years 1918, 1919, 1920, 1921 and 1922. Note general summary of fatalities by occupation:
Brakemen......................... 55
Locomotive engineers and firemen. ..... 5
Sectionmen, trackmen and graders. ..... 22
Skidroad men ..... 5
Fallers. ..... 54
Hooktenders. ..... 19
Hookon men ..... 13
Chokermen, choker setters ..... 51
Chasers ..... 36
Rigging men, rigging slingers
Signalmen ..... 8
58
Donkey engineers and firemen ..... 32

| Wood buckers and wood splitters... 12 |
| :---: |
| Teamsters. . . . . . . . . . . . . . . . . . . 12 |
| Truck and tractor drivers.......... . . 8 |
| Bolt and tie cutters. |
| Boom and pond men............... 9 |
| Miscellaneous occupations. . . . . . . . . 59 |
| Total.............................. . . 582 |

But after all this is done it is up to the individual to answer the petition of the little girl at mother's knee.

Thoughtfulness, therefore, in dealing with, or working with one's fellows will be essential to the happiness of at least some of our readers during the new year. WILL WE THINK?
Illustration of this article courtesy N. S. C.

## Millions of Feet of Lumber For Japanese Relief

The Douglas Fir Exploitation \& Export Co. has contributed $\$ 50,000$ cash which will be used to purchase lumber to be given to the Japanese government. The American Red Cross, through its Portland purchasing agent, Joseph Ganong, shipped four and onehalf million feet of lumber on the steamer Dewey from the Columbia River, September 17 th. In all probability five million feet additional of lumber will be shipped for immediate needs from the Columbia River, including some boards from Bend, Ore.

The Canadian government has contributed five million feet of lumber, also for Japanese relief.

## WHAT PART OF A SAW MILL



1


2


3

Answer to December Puzzles:-No. 1, Track; 2, Rolls;

## The Frank Purcell Walnut Lumber Co.

(Continued from Page 92) connection with the Purcell people, he was for seventeen years superintendent for a large mill at Vicksburg, Miss.

The firm's filer, Mr. Otis Terry, though young in years, is a fine mechanic, and knows how to put a saw in tip-top shape.

To the efficient management of Mr . Shanklin is due much credit for the splendid growth of the business in its few years of existence.

## The Old Washington Elm

(Continued from Page 93)
It has been suggested that the tree be cut up into sections and sent, suitably inscribed, to every state in the Union, the District of Columbia, and the Territory of Alaska.

Since the Elm has passed into history several "scions" of the famous tree have come into prominence, so its memory will be perpetuated indefinitely. They are located as follows: Hunnewell Park, Wellesley, Mass. University of Washington, Seattle Annapolis, Maryland Municipal Park, Hartford, Conn. Charlestown, Suburb of Boston Tomb of Washington, Mt. Vernon, two.

The Charlestown elm may be chosen as the heir to the throne of the first Washington Elm. It was officially offered to the city of Cambridge by Mayor Curley, of Boston.

## Immense Food Dish

The largest food dishes in the world were recently bought of the Indians of Vancouver Island, British Columbia, for the Museum of Natural History, New York City. The illustration shows the relative size of these dishes when compared with the size of a person. These dishes were purchased from a tribe named Kwakiutis, which means

in English, "Smoke of the World." The.y are used for special festivals when great numbers of Indians gather to celebrate some religious or ritual festival. They are carved out of wood, and stews and soups are brought to the boiling point by dropping hot stones into the food they contain. The carvings at the ends represent the clan to which the dish belongs.

Characters never change. Opinions alter. Characters are only developed.

## DOES EACH PICTURE REPRESENT?




## SAWDUST

Apple-"What makes you think Polly has a wooden leg?"

Sauce-"She stopped at a store to get some garters and came out with a package of thumb tacks."-Awgwan.

Willie was struggling through the story in his reading lesson. "No," said the captain," he read, " 'it was not a sloop. It was a larger vessel. By the rig I judged her to be a-a-a-a-a-"

The word was new to him.
"Barque," supplied the teacher.
Still Willie hesitated.
"Barque!" repeated the teacher, this time sharply.

Willie looked as though he had not heard aright. Then, with an apprehensive glance around the class, he shouted:
"Bow-wow!"-Detroit Free Press.

## HIAWATHA

By the shores of Cuticura,
By the sparkling Pluto Water, Lived the prophylactic ChicletDanderine, fair Buick's daughter. She was loved by Instant Postum; Son of Sunkist and Victrola; Heir apparent to the Mazda; Of the tribe of Coca-Cola,
Through the Tanlac strolled the lovers-
Through the Shredded Wheat they wandered-
"Lovely little Wrigley Chiclet,"
Were the fairy words of Postum.
"No Pyrene can quench the fire,
Nor can Aspirin still the heartache;
Oh, my Prestolite desire,
Let us marry, little Djer-Kiss."
-Exchange.
Daniel Webster was once sued by his butcher for a bill of long standing. Before the suit was settled he met the butcher on the street and, to the man's great embarrassment, stopped to ask why he had ceased sending around for his order.
"Why, Mr. Webster," said the tradesman, "I did not think you would want to deal with me when I've brought suit against you."
"Tut! tut!" said Mr. Webster, "sue me all you wish, but for heaven's sake don't try to starve me to death."'

A small boy climbed out on a bough. Said he: From this perch I allough I can sure aviate Up, down or strate.
The youngster's in the hospital nough.

Percy-"I have been greatly benefited by spending the evening with you. Your intellect appeals to me. Are you a literary woman?"

Mercy-"Oh, my, no; I am a teacher in an infant school."

Teacher-"We borrowed our numerals from the Arabs, our calendar from the Romans, and our banking from the Italians. Can anyone think of any other examples?"

Willie Willis-"Our lawn mower from the Smiths, our snow shovel from the Joneses and our baby carriage from the Bumps."

A negro met an acquaintance of his, also colored, on the street one day and was surprised to see that his friend had on a new suit, new hat, new shoes and other evidences of prosperity.
"Hey, boy," he said, "how come you dressed up this way? Is you got a job?"
"I'se got somethin' better'n any job," replied the other, "I'se got a profession."
"What is it?"
"I'se a orator."
"What's a orator?"
"Don't you know?" replied the resplendent one in surprise. "Well, I'll tell you what a orator is. If you was to walk up to a ordinary nigger and ask him how much was two and two, he'd say 'four,' but if you was to ask one of us orators how much was two and two he'd say, 'When in de cou's of human events it becomes necessary to take de numeral of de second denomination and add it to de figger two, I says unto you and I says it without fear of successful contradiction, dat de result will invari'bly be four.' Dat's a orator."-Judge.

## Quality?--Quantity?--Or both?

Sometimes a Disston product does not reach the purchaser as quickly after the order as perhaps he thinks it should. Most of our customers, realizing that real steel-quality-and-workmanship tools cannot be produced in a hurry, understand this, but we should like everyone to understand.

We do everything in our power to prevent any delay. We have established branches at central points throughout the country and our plant and traffic department work full time. But there is one thing we cannot do: slight or hurry a single process in the manufacture of our product. Disston saws, tools, and files must be perfect from the first melting ot the steel to the final polishing of the finished tool. This standard we must adhere to, for our own reputation and your satisfaction.

Get your orders in early. Everything will be done to fill them quickly, and you can be sure of quality, no matter how heavy the demand.

HENRY DISSTON \& SONS, Inc. Philadelphia, U. S. A.

## BetterWork

We established the following branches to give the best possible service to Disston customers. Take advantage of the service offered by the one nearest to you.

## BRANCHES :

1
Henry Disston \& Sons, Inc., of Illinois Jefferson Street \& Washington Blvd., Chicago, Ill.

2
The Henry Disston's Sons Company
Sixth \& Baymiller Streets
Cincinnati, Ohio
3
Henry Disston \& Sons, Inc. 322 Occidental Avenue Seattle, Washington

4
Henry Disston \& Sons, Inc. 144 Second Street San Francisco, Calif.

5
Henry Disston \& Sons, Inc. 91 First Street
Portland, Oregon
6
R. B. McKim Company, Inc.

116-118 Pearl Street
Boston, Massachusetts

7
R. B. McKim Company, Inc. 120-122 Exchange Street Bangor, Maine

8
The Reichman-Crosby Company 233-235 South Front Street Memphis, Tenn.

9
C. T. Patterson Co., Ltd. New Orleans, La.

10
Henry Disston \& Sons, Inc. 130-132 Marietta Street Atlanta, Ga.

11
Henry Disston \& Sons, Ltd. 2-20 Frazer Avenue Toronto, Canada

12
Henry Disston \& Sons, Ltd. Vancouver, B. C., Canada

Henry Disston \& Sons, Ltd.
80 Sussex Street Sydney, Australia, N. S. W. 14
Henry Disston \& Sons, Inc. 120 Broadway New York City

## HENRY DISSTON \& SONS, Inc. GENERAL OFFICES AND FACTORY: PHILADELPHIA, U. S. A.

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[^0]:    Henry Wadsworth Longfellow was born at Portland, Maine, Feb. 27, 1807-

[^1]:    We are indebted to Mr. John Clough, of Dorchester 25, Mass., for the above views. They are from his 300 -acre timber tract near Weare, N. H. A river 50 to 80 feet wide flows through the tract. It is fed by three trout streams. Beautiful scenery, good fishing, invigorating air, attractive home, and "ye ole swimmin' hole" are very convincing reasons for Mr. Clough spending his summers on this tract.

[^2]:    In getting an education it is up to a young man to learn to do things with what helearns.

[^3]:    "'Let no one begulle you with dreams of idien ess. Life without toll, if possible, would be an intolerable existence. Work is the supreme engagement, the sublime luxury of life.'
    -President Harding.

[^4]:    "Who's that guy you were talking so nice to?"
    "Aw, that's my old family druggist."
    "What did he say?"
    "No!"

[^5]:    Disston Wood-Sawing Machine No. 1

[^6]:    Thursday, November 29th, is Thanksgiving Day. One of the many things the Amercan can be thankful for is a substantial currency.

[^7]:    Note:-The Miller \& Gordon Mfg. Co. operates a six-foot band mill. They cut hardwood summer and winter from which are made clothes-pins and dowels. They have been operating since 1920 with 4 Disston Bands. The members of the firm are Messrs. Winifred Gordon, R. D. Miller, and Ray Miller. They employ 100 men. The publication of their splendid letter is evidence that Disston's greatly appreciate their testimony to the quality of Disston Saws.- [Ed.]

[^8]:    uring plants of The Long-Bell Lumber Company at Longview, Washington. Some idea of the

