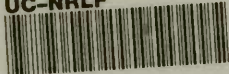


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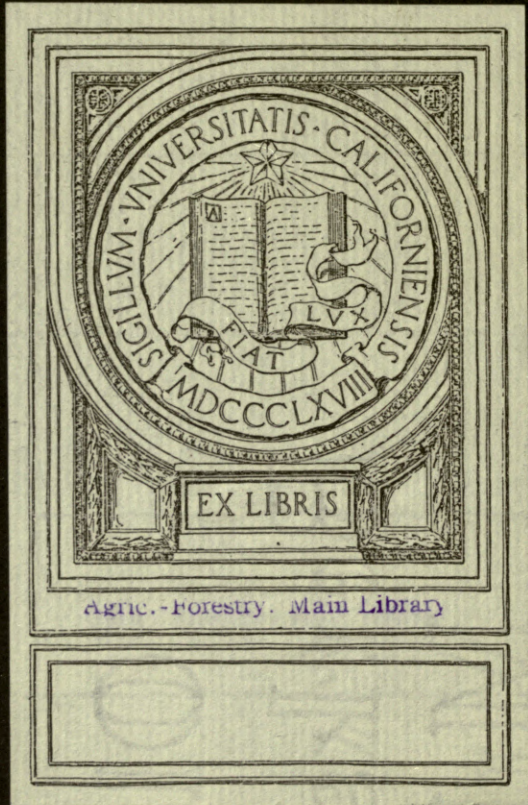


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THE POST EVERLASTING
(CREOSOTED FENCE POSTS)

The Long-Bell Lumber Company.

YE 10387



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COPY FOR BINDING

The POST EVERLASTING

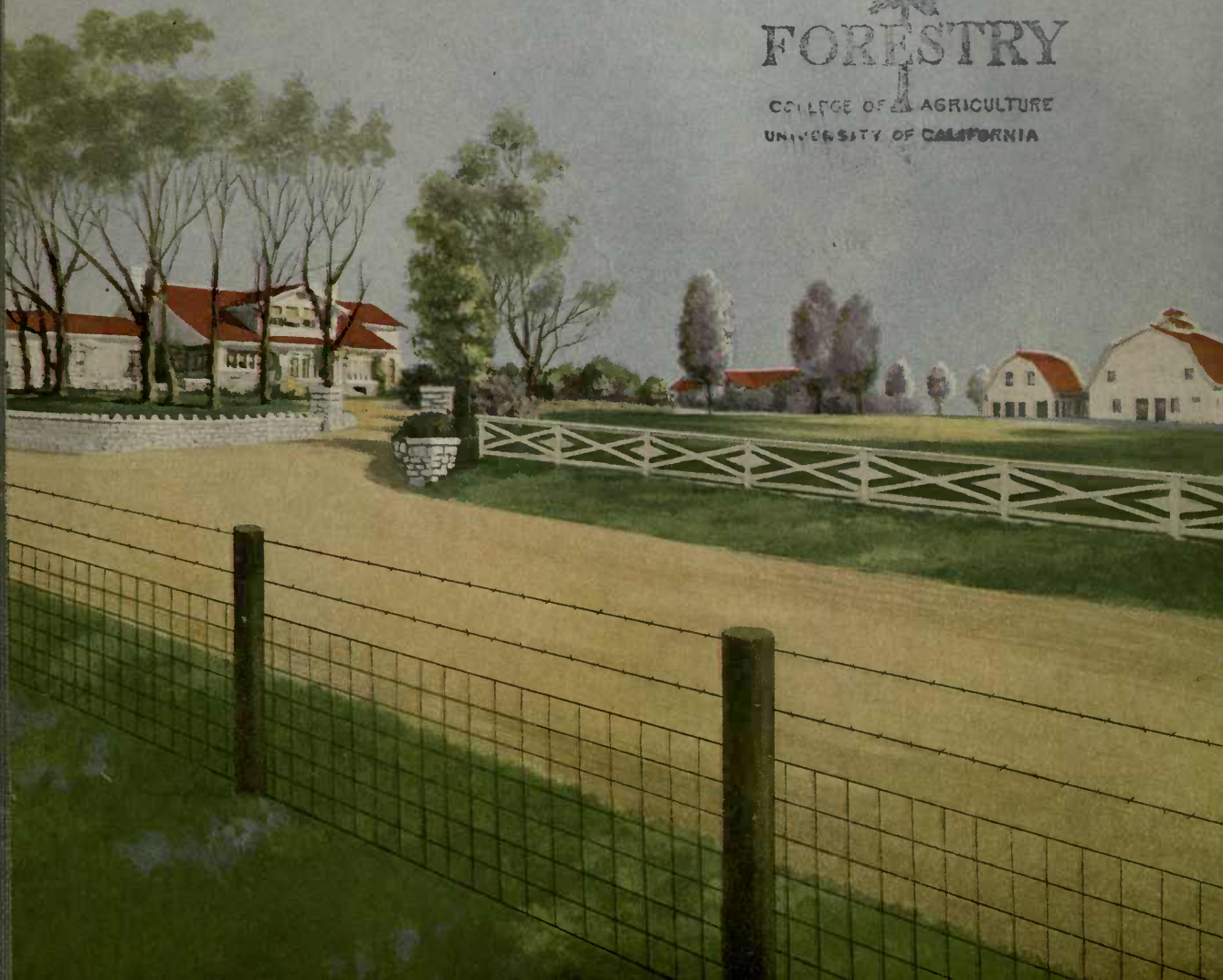
LINE OF
CALIFORNIA

(crossed-fence posts)



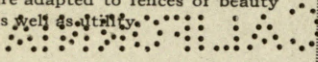
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COLLEGE OF AGRICULTURE
UNIVERSITY OF CALIFORNIA



THE ORNAMENTAL FENCE

shown on the cover plate of this book is from an actual photograph, taken on the farm of Mr. F. J. Bannister, in Jackson County, Missouri. The posts are of Long-Bell creosoted yellow pine, and show that these posts are adapted to fences of beauty as well as utility.



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C. E. P.

LONG BELL

Creosoted Yellow Pine
Fence Posts, Barn Poles
and Floor Blocks

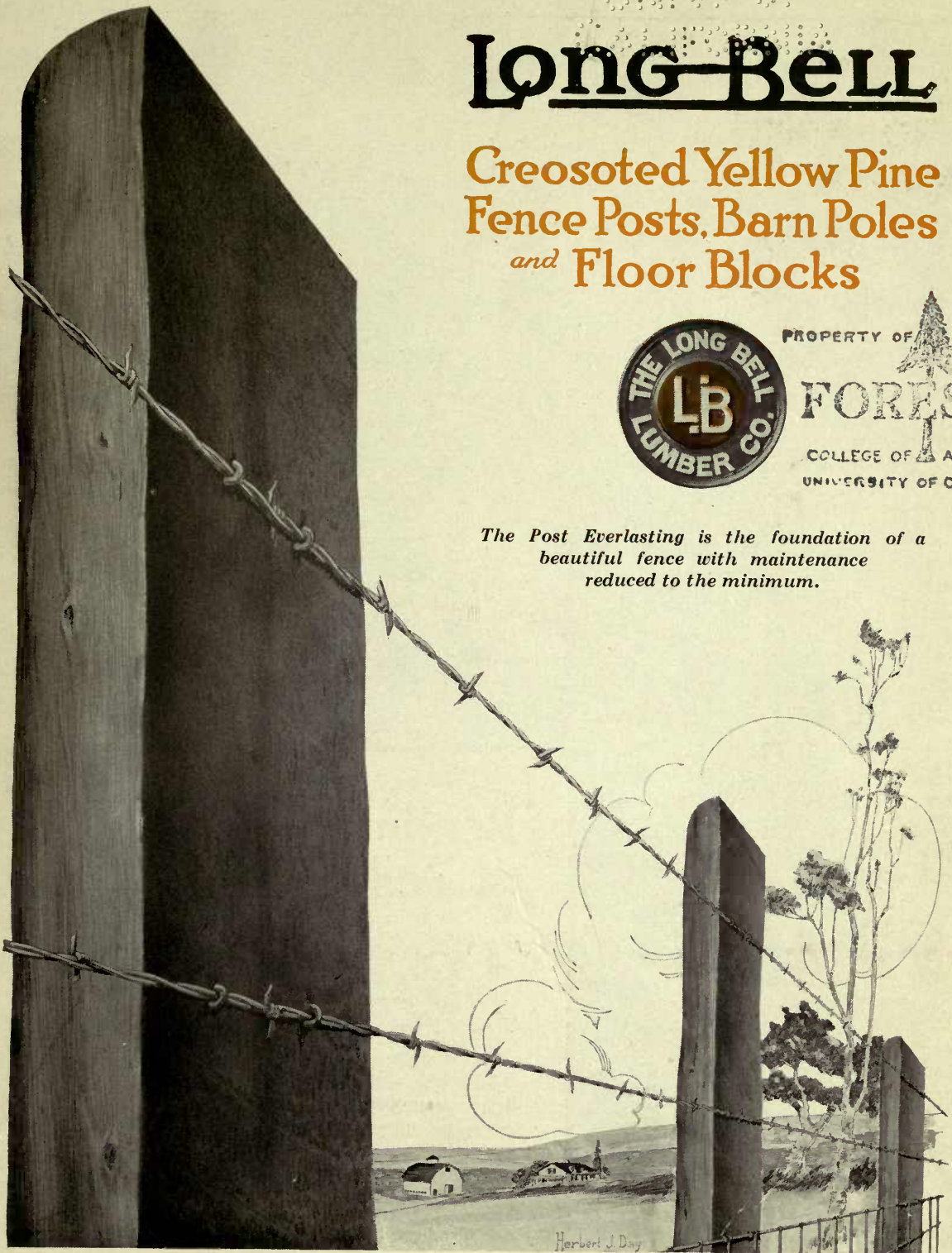


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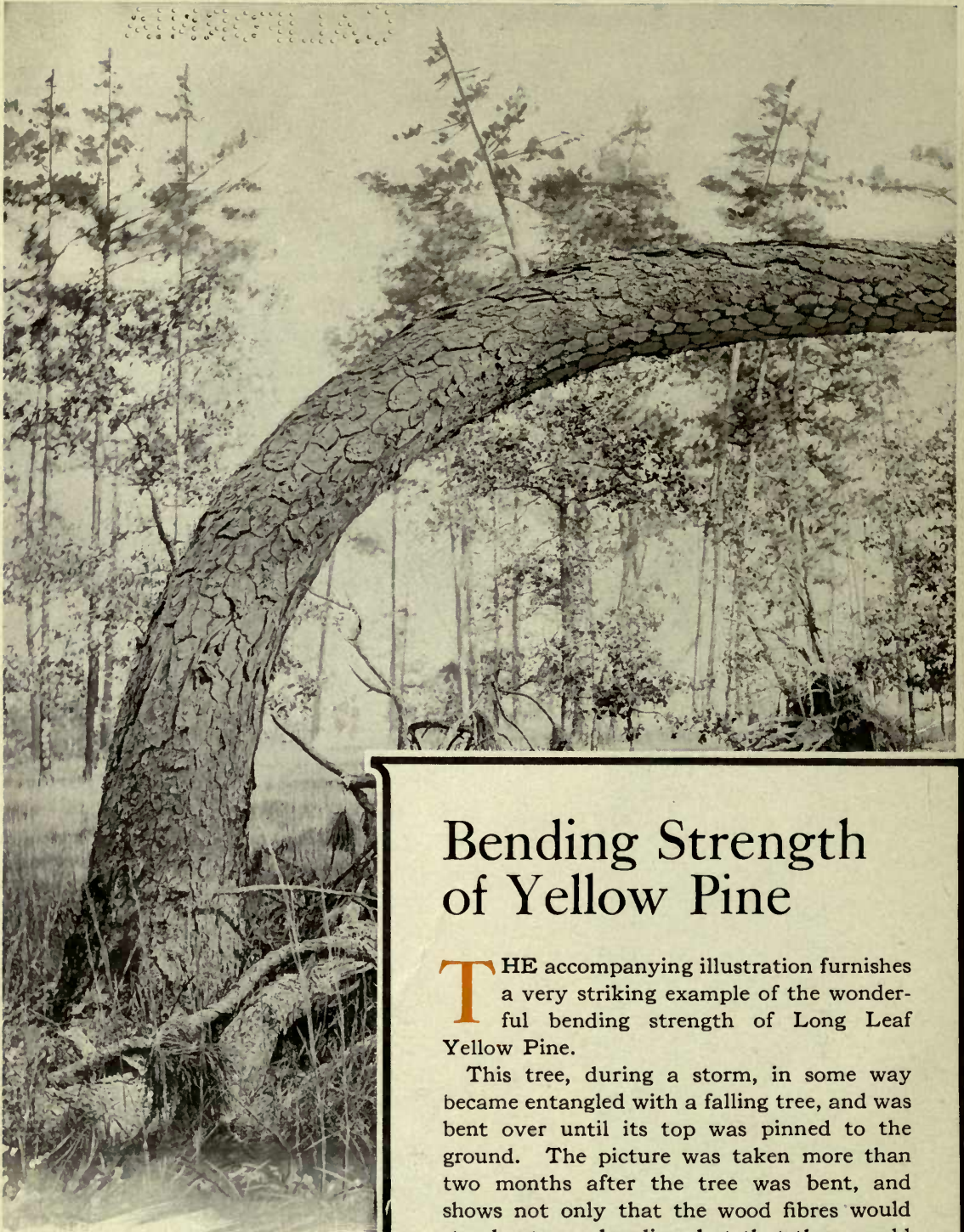
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*The Post Everlasting is the foundation of a
beautiful fence with maintenance
reduced to the minimum.*



The **LONG BELL LUMBER CO.**
KANSAS CITY, U. S. A.



Bending Strength of Yellow Pine

THE accompanying illustration furnishes a very striking example of the wonderful bending strength of Long Leaf Yellow Pine.

This tree, during a storm, in some way became entangled with a falling tree, and was bent over until its top was pinned to the ground. The picture was taken more than two months after the tree was bent, and shows not only that the wood fibres would stand extreme bending, but that they would remain under this great tension for a long period without rupture.

L-B Creosoted Yellow Pine Fence Posts and Poles for Hay Barns insure dependable strength and service where permanency is required. Decay-proof below the ground and weather-proof above.



The Annual Fence Post Bill of American Farmers



THE enormous sum of \$100,000,000 is spent every year in the United States in replacing decayed fence posts. Every penny of this staggering total comes right out of the farmers' pockets. The saving of this expense would build more than 25,000 miles of the best rock roads every year. This estimate is based on a report issued by the

United States Department of Agriculture, which says:

“The average life of all fence posts, if untreated (not creosoted), is estimated at about eight years. With proper preservative this life may be increased fourteen years, giving a total service of twenty-two years from treated posts. Estimating the total number of posts in use as four billion, the annual replacement if none was treated, would be one-eighth of four billion, or 500,000,000 posts. If properly treated the replacement would amount to only one twenty-second of 4 billion or 180 million posts—a saving of approximately 320,000,000 posts.”

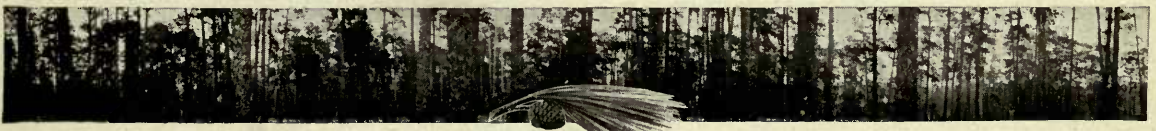
According to the Government's figures, the money value of this annual waste amounts to \$100,000,000. Remember—this is for the posts alone. The cost of labor and time is *not* included. Taking these government figures as a basis—and these figures are the most accurate obtainable—500,000,000 posts a year decayed, lost and replaced—means an

annual outlay of \$100,000,000, if we figure the average price per post at only 20 cents.

What \$100,000,000 Will Do:

- Build 25,000 miles of the best rock roads.
- Put a modern silo on every farm in the state of Kansas.
- Put a \$1,000.00 tractor on practically every farm in the state of Nebraska.
- At a monthly wage of \$40.00 per month, would pay the wages of 208,333 hired men for one year—enough hired men for nearly every farm in Pennsylvania.
- Pay for 1,000,000 acres of improved farm land valued at \$100.00 per acre, which would raise 15,000,000 bushels of wheat with an average yield of 15 bushels per acre, which would bring \$33,750,000 at a price of \$2.25 per bushel.
- Put a \$750.00 motor car on 133,333 farms in the United States, or a motor car to every farm of three acres and over in the state of Nebraska.
- The yearly fence post wastage of \$100,000,000 would give every man, woman and child on farms in the state of Kansas \$100.00 apiece.

You will see just what this big saving really means to the farmers of America. The figures quoted above will tell you what is being wasted each year, what it means in actual dollars and what this vast amount could do if saved and spent in constructive work. The purpose of this book is to show you how to make your fence construction permanent—how to get fifty years' lasting service out of each and every fence post.



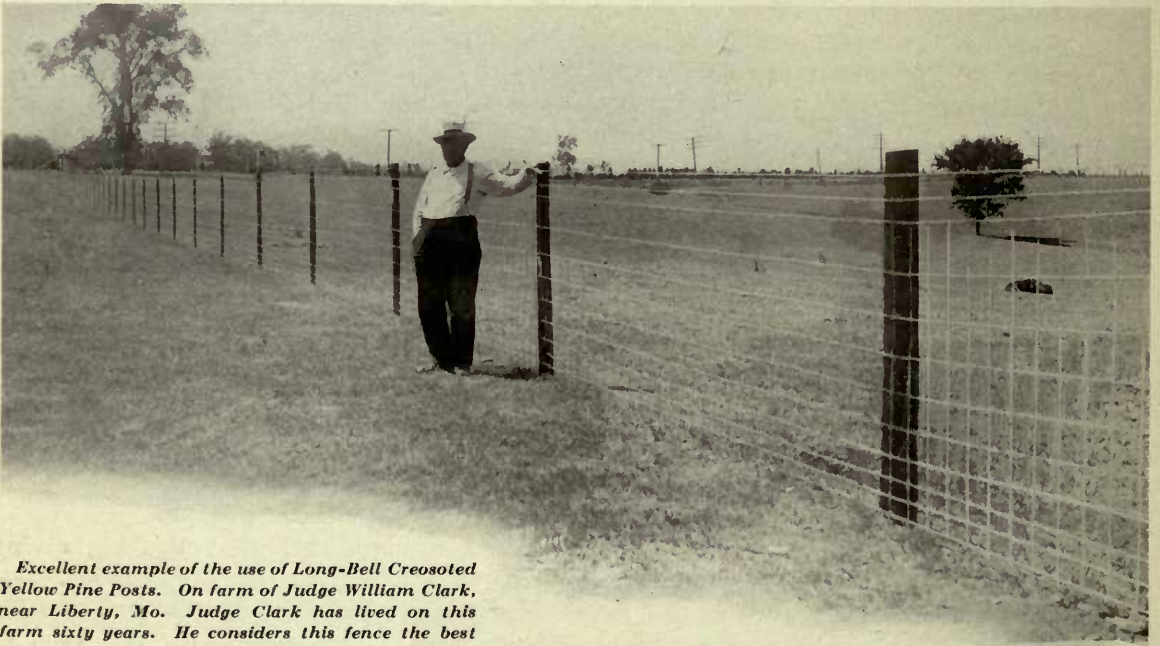


Eight Years is the Average Life of Ordinary Posts

THE ordinary fence post lasts only about eight years even under the most favorable conditions. Untreated posts rot quickly, break or split—all due to the process of decay. The staples will not hold, the wire sags and the fencing collapses. That means another job for the farmer or his hired man and the same job is repeated regularly every thirty days, if any real attempt is made to keep the fence up. It is only good business sense on the farm to do everything possible to reduce repairs to a minimum so as to allow all available hands to concentrate on work that brings in money.

farmers who have not suffered losses of this nature aggregating many hundreds of dollars.

About 1,500 fence posts are required to properly fence a 160-acre farm. One-eighth of this number must be replaced every year at great trouble and expense as well as loss of valuable time. Time is a big asset now, and will continue to be a big asset for years to come. If you will just count the time spent in making repairs, the cost of the new posts for replacements, the materials used and the damage to the wire fencing, your eyes will be opened to the bigness of the



Excellent example of the use of Long-Bell Creosoted Yellow Pine Posts. On farm of Judge William Clark, near Liberty, Mo. Judge Clark has lived on this farm sixty years. He considers this fence the best he ever put up.

The loss by death of livestock on account of bad fencing, broken and decayed fence posts throughout the United States doubtless aggregates many millions of dollars per annum. While no statistics are available bearing on this question, yet there are very few

expense required to keep a fair-sized farm properly fenced. You will also be impressed with the great saving in actual dollars you can realize by the actual use of posts treated with creosote according to the Long-Bell process.





Better Fence Posts

DO not confuse *Long-Bell Creosoted Yellow Pine Fence Posts* with other so-called creosoted posts, which are merely dipped or butt-treated in an open tank.

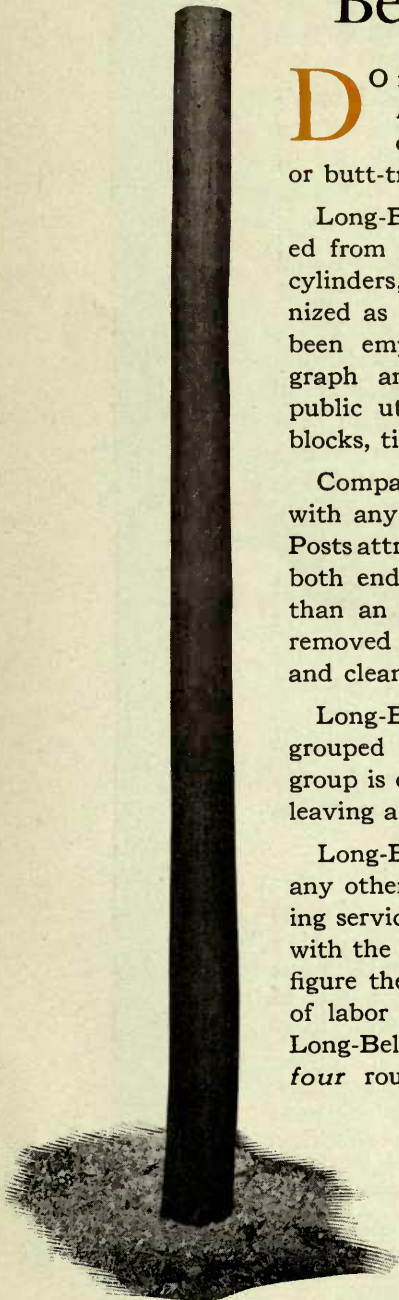
Long-Bell Creosoted Yellow Pine Posts are treated from top to butt, with creosote, in air-tight cylinders, under pressure. This method is recognized as the one really efficient method and has been employed by municipalities, railroads, telegraph and telephone companies and other large public utilities for the treatment of wood paving blocks, ties, piling, bridge timbers and poles.

Compare Long-Bell Creosoted Yellow Pine Posts with any others on the market. You will find L-B Posts attractive in appearance—symmetrical, straight, both ends sawed evenly. They do not vary more than an inch from specified lengths. The bark is removed before treatment, leaving each post smooth and clean and of uniform color.

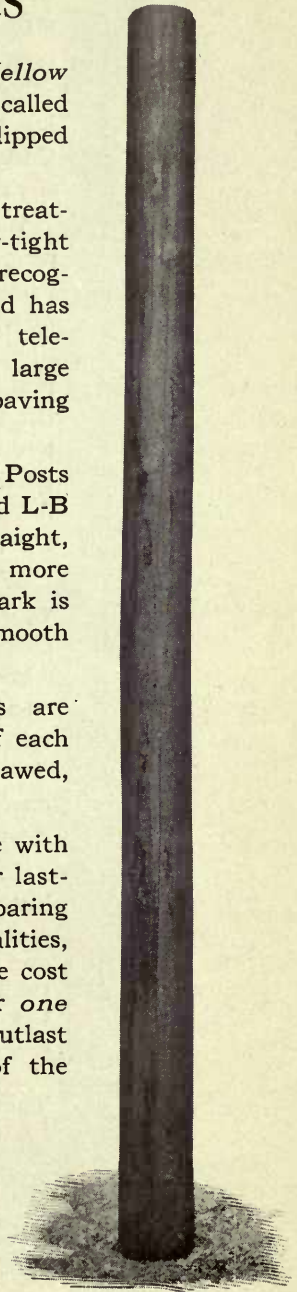
Long-Bell Creosoted Yellow Pine Posts are grouped so that the variation in diameter of each group is only an inch. The halved posts are sawed, leaving a straight, square face.

Long-Bell Posts compare favorably in price with any other posts anywhere near their equal for lasting service and dependable strength. In comparing with the rough native posts used in many localities, figure the cost of four such posts and add the cost of labor for at least *three* replacements, for *one* Long-Bell Creosoted Yellow Pine Post will outlast *four* rough native posts, to say nothing of the probable losses and annoyances from fences collapsing, due to decayed posts.

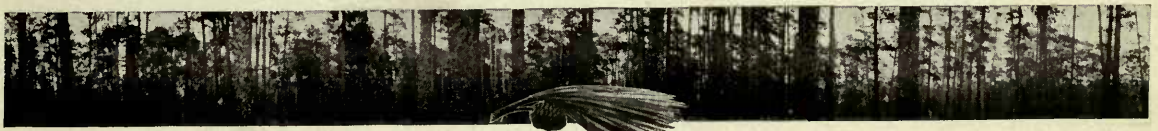
In comparing the diameter of any Long-Bell Creosoted Yellow Pine Post with untreated posts on the market, bear in mind that L-B Posts have no sap to decay, but are preserved



GROUP No. 1.
Round; $2\frac{1}{2}$ to $3\frac{1}{4}$ inches diameter small end. Lengths, 6, $6\frac{1}{2}$, 7 and 8 feet.



GROUP No. 2.
Round; $3\frac{1}{2}$ to $4\frac{1}{4}$ inches diameter small end. Lengths, 6, $6\frac{1}{2}$, 7 and 8 feet.





throughout. The sap-wood of any untreated post decays in a very short time, leaving the post no stronger and with no more ground bearing than a post the size of the heartwood it contains.

Yellow Pine, having a greater breaking and bending strength than White Oak or Red and White Cedar, can be used in much smaller diameters, with the same results.

Wood is wood—that is true—but Yellow Pine, properly treated with a preservative of tested and proved efficiency, becomes practically decay-proof, offers a solid foundation for staples and consequently holds the wire fencing taut and strong for an indefinite period. While other woods are growing scarcer all the time, there is a generous supply of Yellow Pine available and with waste eliminated and thorough treatment now available, this material offers the farm owner many advantages over any other with the added advantage of economy in first cost.

We have seen examples of temporary treatment which represented absolute loss of time, preservative chemicals and labor. The open tank method means a loss of creosote due to evaporation. The creosoting was never thorough enough to insure entire protection from the fungi of decay and after a comparatively short time, evidences of a lack of uniformity made themselves known where the treatment was simply a thin veneer.

The butt treatment was good as far as it went—but, it did not go far enough. Examination of posts and poles butt treated show imperfect impregnation and gradual decay at the ground line. Like the open tank method, the butt treatment meant a loss of the preservative due to evaporation and little security against the ravages of decay.

Both methods have been tried and found wanting. There may have been an excuse for these methods in the early days of wood preserving in America,

but now, with the Long-Bell Pressure-Vacuum process in successful operation and a large output available, there is no need to experiment or waste time and money attempting home methods in vogue before the advent of a truly scientific process like that employed by this company.



GROUP No. 3.

Round; 4½ to 5¼ inches diameter small end. Lengths, 6, 6½, 7 and 8 feet.



GROUP No. 4.

Round; 5½ to 6¼ inches diameter small end. Lengths, 6, 6½, 7 and 8 feet.





MANY severe tests and experiences have proved that Yellow Pine Posts and Poles treated with creosote, under pressure, are extremely fire-resistant. Dry grass and brush were piled around Creosoted Posts and then set on fire. The fire was allowed to burn out and upon examination the posts were found only slightly charred—the surface showing faint traces of fire.

Creosoted Poles, after eighteen years' service in the marshes of southern States where the marsh-grass burns over almost every year, show only charred surfaces. These fires are so intense that insulators on the cross beams of telephone and telegraph poles are cracked and destroyed by the heat.

Farm owners undergo losses due to fires, especially where the land is located along a railroad right-of-way. Thousands and thousands of feet of fencing become useless each year due to grass fires. This loss can be cut down by using Long-Bell Creosoted Yellow Pine Posts. The L-B treatment with creosote practically fireproofs Yellow Pine and means protection from disastrous grass fires.

Since we introduced Long-Bell Creosoted Yellow Pine Posts progressive farmers in all parts of the country have been replacing their old posts at a rapid rate. These men were quick to see the many advantages of decay-proof fence posts. They realized that the best fencing cannot give the service intended when strung on flimsy posts that rot, split, peel or easily break.

The enormous quantity of posts shipped from our big creosoting plants is practical proof of the popularity of permanent construction among a large number of farmers and stock raisers. Public utility corporations use these posts in large numbers and the United States Government has long since appreciated the wonderful saving and better building possible because of posts, poles and timber treated according to the Long-Bell process.

GROUP 3-A.

Sawed halves; made from round posts; 1/2 to 5/4 inches diameter. Lengths, 6, 6 1/2, 7 and 8 feet.

GROUP 4-A.

Sawed halves; made from round posts; 5/2 to 6 1/4 inches diameter. Lengths, 6, 6 1/2, 7 and 8 feet.





Wood is the Cheapest Fence Post Material

WOOD has always been the *Most Practical* material for fence posts—the problem was to make fence posts more durable—to lengthen their life of useful service. This problem has been solved successfully, and now wood is not only the most practical fence post material, but it is likewise the *Cheapest*.

Concrete posts, if reinforced with steel rods to required strength, are too expensive. They are not a proved success. Concrete posts disintegrate—they break and crack and it is next to impossible to devise any practical scheme of attaching fence wire to them so that it will hold.

All-steel posts are not only too expensive, but are no better than concrete, for they are short lived; they bend and are easily broken. All farmers familiar with fencing realize that any post small enough to permit of being driven, has not sufficient ground-bearing to hold upright and in place any fence used for the enclosure of livestock.

Wood is the Material for Fence Posts—that is the unanimous opinion of the world—old and new. Old-time objections to wood posts were due to natural causes that have now been successfully overcome. A post of sturdy Long-Leaf Yellow Pine, creosoted the Long-Bell way, bearing the L-B Trade Mark, is the *Perfect Post* from every viewpoint—long life, decay-proof, greatest breaking strength, greatest shearing strength and greatest bearing strength—*Reasonable in Cost*.

With these economic advantages available, it is sheer waste to stick to the old posts, spending time and money in making repairs and replacements. Eliminate waste—conserve time. Use only posts that will lengthen the life of your fencing.

GROUP Q-A.

Sawed quarters; made from round posts; 6½ to 7¾ inches diameter. Lengths, 6, 6½ and 7 feet.

GROUP Q-B.

Sawed quarters; made from round posts; 8 to 9½ inches diameter. Lengths, 7 and 8 feet.





Note the clean-cut appearance of this fence. Straight, strong and attractive—a heritage for the next generation.

Decay Chief Cause of Big Annual Expense Bill

IT has been said by an eminent statistician that the money expended for fencing on farms throughout the United States, during each period of fifty years, equals the total value of all the farms.

Here is an excessive tax for a nation to pay—an exorbitant tax; now, a needless tax, because fully 75 per cent of this annual waste can be saved by an intelligent selection of materials used in fence construction. America has been slow to adopt the methods of Europe in dealing with this problem, for over fifty years have passed since agricultural authorities of many of the countries of the Old World took the matter in hand by treating fence posts with creosote, resulting in fence construction that will endure for generations.

What Decay Is:

The decay of wood is not an inorganic process, like the rusting of iron or the crum-

bling of stone, but is due to the activities of low forms of plant life called bacteria and fungi. The spores of some find a lodging in dead portions of a tree or in cut timber, and if the wood is moist and in the right condition for the spore to grow, it germinates and sends out a thin, film-like white thread which, by repeated branching, penetrates the entire structure of wood. These are the real agents of decay.

The ways and means of building fences that will last a generation and longer are explained in this book. It is a story of years of research and experimenting, the gathering of data from Europe and America, the installation of huge equipment representing a large outlay of capital—all this in order to produce a decay-proof fence post.





Railroads Big Users of Creosoted Posts

EXCEPT in rare instances the individual farmer has never kept any record of his cost per annum in the way of materials and labor required for the construction and maintenance of his fences, although he knows there have been very few years, if any, when he was not compelled to put in place from one to several wagon loads of posts. The contrary is true of the larger railroads. By reason of careful systems of accounting the management of all large railroads has, during the past few years, come to realize the heavy burden placed upon them in maintaining fences along their right-of-way. With the view of reducing the annual cost of fence maintenance, many of the more progressive railroads have for several years been experimenting with various fence posts, but apparently without any satisfactory results until within the past four or five years, during which time such roads as the A. T. & S. F., G. C. & S. F., Kansas City Southern, Missouri Pacific, M. K. & T. and other lines have been using many hundreds of cars of *The Post Everlasting*.

The Louisville & Nashville R. R. reports creosoted stringers to be sound after 24 years, creosoted piling sound after 25 years, and creosoted bridge ties in excellent condition after 27 years.

It is estimated that it costs an average of \$75.00 per farm per annum to replace broken and decayed fence posts. By preventing decay, this expense can be saved and the use of Long-Bell Creosoted Yellow Pine Posts will enable farmers to keep this saving in the bank or expend it for other improvements.

Farmers can cut down their losses in live stock by using Long-Bell Creosoted Yellow Pine Fence Posts. These posts make good,

strong fences that stand firm against the heaviest bull or the most unruly animal. They also prevent losses of live stock that can be definitely traced to broken and de-



In the interest of neatness, economy and safety, many railroads have adopted creosoted posts for right-of-way fencing. They are fire-resistant.

ayed fence posts. Long-Bell Creosoted Posts will continue upstanding and decay-proof for a lifetime.





An Era of Improvement

NATIONAL and state legislation is pointing the way to an era of improvement. Millions have been voted to construct good roads and highways which will connect all sections of the United States and hasten the development of inter-com-

through the plans of the Government. Rural communities and farms which have heretofore seemed far away will be brought into close relations with the big manufacturing centers and distributing points.

America is undergoing the reconstruction period with something more than the spirit of readjusting the national life to a peace basis. With the Government leading the way, the large manufacturers are following with plans for improvements. The great agricultural districts of the country are planning improvements because farm owners everywhere realize more than ever that their properties are the backbone of our national prosperity and that a well improved farm is an asset which represents so much cash.

Pioneer days have passed into history. In early times it was only a question of putting up a makeshift building or a fence that would be a boundary line and nothing else. Today a good barn or hog house is a necessity. And a good fence is also considered an important improvement which must be constructed for dependable service with a minimum first cost consistent with the elimination of all repairs and replacements.

A man's farm is his estate. He will improve it with that type of construction which features permanency first, for in so doing he is building for all time. But there is something more than the requisite of permanency to be considered. Your farm is judged at first glance by its appearance. Well constructed buildings, kept in good condition, mean healthy livestock and the proper storage of fodder and crops. Improving old buildings, replacing those not worth repairs with new structures and planning these improvements in order to facilitate the farm work will mean less manual work with plenty



Long-Bell Creosoted Posts assure permanence in guard rail construction. They are strong and decay-proof.

munity motor service to supplement railroad haulage. Rural mail service is to be broadened and delivery made more promptly





of time to devote to better farm management and a closer study of market conditions.

The really successful farmer or stock raiser is, like the successful manufacturer or merchant, a man who makes his plans with the future given due consideration. He will spend his money for needed improvements with the same sound judgment he follows when he is in the market for farm machinery. Service is what he wants—durable service at a reasonable cost.

Therefore, plan all your improvements so that you can obtain the service you desire.

successful farmer cares about, he will investigate the kind of posts which are to be used. He wants posts that will give service—lasting service. He wants posts that will not decay and rot and require frequent repairs, or replacement, every eight years. The business farmer wants posts that will hold staples as long as the metal endures—as long as a staple is a staple. He wants fence posts which will hold his fencing under any possible strain.

Long-Bell Creosoted Yellow Pine Posts—because of the nature of the wood, the care in cutting and the thoroughness of the treatment with creosote—are the



The old and the new. On the left is seen fence strung on Long-Bell Creosoted Yellow Pine Posts—good for fifty years. On the right, a makeshift fence—home-made posts, untreated, with steel rods in between.

The question of a fence is frequently the last to be considered. But a good fence is the first improvement the successful farmer plans, for he knows that his cattle must be safeguarded and kept within bounds, that trespassers must know where his property begins and where it ends and, in general, a fence is the first improvement because it indicates ownership and marks the lines within which a man is living his life and seeking his livelihood.

And as a good fence is the only fence the

posts preferred by farmers who give serious consideration to the fence question. With thousands of dealers ready to supply these posts in all parts of the country—at reasonable cost and with assurance of long life and satisfactory service—there is no longer any need for any farmer using flimsy native posts that quickly rot and must be replaced. It takes the same time and work to set a post destined to decay in a short time as it does to set an L-B Post—*The Post Everlasting*.





How to Prevent Decay



IN MAKING fence posts durable and decay-proof, they must be treated with a preservative that kills the fungi and bacteria—the cause of rot and decay. G. B. McDonald of the Iowa Agricultural Experiment Station, in an article printed in *The Farmer's Mail & Breeze*, explains the process of decay as follows:

“Decay, or rot, in fence posts is caused by fungi and bacteria, the former being threadlike filaments, the latter minute organisms—both of which destroy the wood structure. Fungus development requires the presence of moisture, heat and air, besides food, which is supplied by the wood itself. This accounts for the excessive decay of fence posts, just below the ground line, since it is here that moisture, heat and air are generally sufficient for the growth of fungi.”

The one preventive of rot and decay is creosote—an oil distilled from coal tar. Creosote possesses the properties most deadly to the fungi and bacteria that cause decay and prevents further development of these destructive organisms.

How Creosote Preserves Wood:

Creosote, when properly injected, actually sterilizes the wood cell, which is the food of the fungi and bacteria. That is why it is absolutely impossible for these wood destroyers to exist in wood that has been properly creosoted.

Creosote, being insoluble in water, prevents the absorption of moisture and as moisture is a necessary requisite for the development and growth of fungi and bacteria, nothing is left in the wood, after proper creosoting, to assist these germs of decay. They are killed. All tendencies to give them any reason for existing are removed. Creosote excludes air to a great extent—another fact that fortifies wood against the ravages of decay.

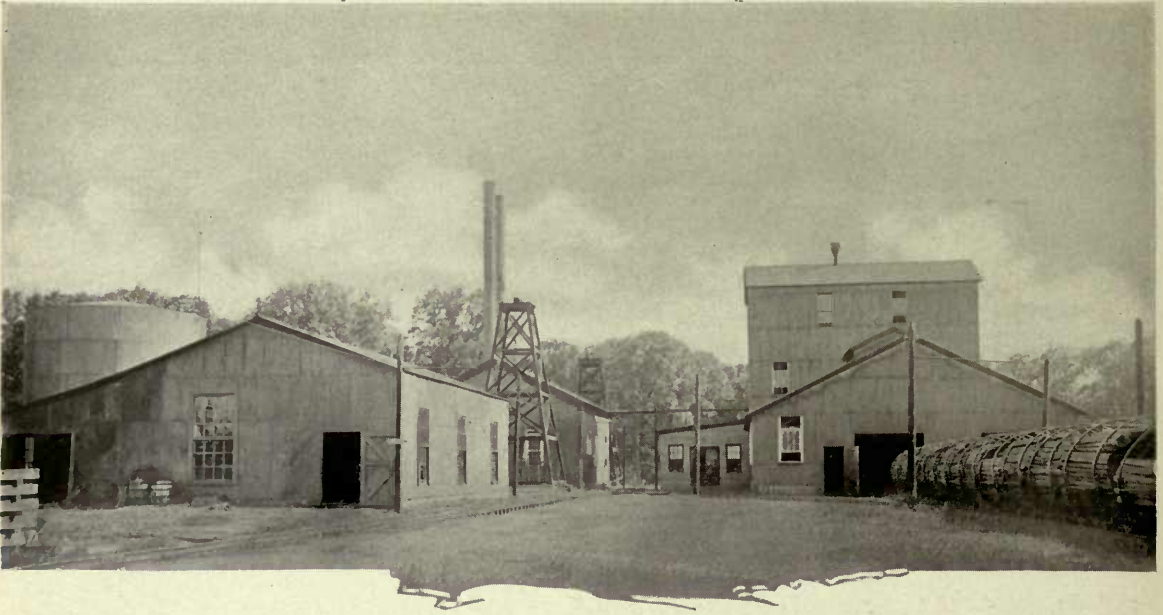


Long-Bell Creosoted Yellow Pine Posts are thoroughly air-seasoned before undergoing the pressure-vacuum treatment.

The use of creosote as a wood preservative has extended over a period of many years. It was never a question of using an efficient chemical preservative—but the method of treatment—which was the problem to be solved. Now with the method perfected and proved in thousands of cases, the prevention of decay in wood is an accomplished fact.

In treating Long-Bell Creosoted Yellow Pine Posts only the best grade of creosote is used. The process is fully explained on the two pages following. After several years spent in treating posts, poles, floor blocks, paving blocks, etc., this company enlarged the capacity of its three big plants in order to treat thousands of fence posts each day and supply the increasing demand for posts that positively defy decay and rot.





Partial view of one of the Long-Bell Creosoting Plants. Posts are loaded on cages or cylinder carriages and run right into the huge cylinders to undergo treatment by the L-B Pressure-Vacuum method.

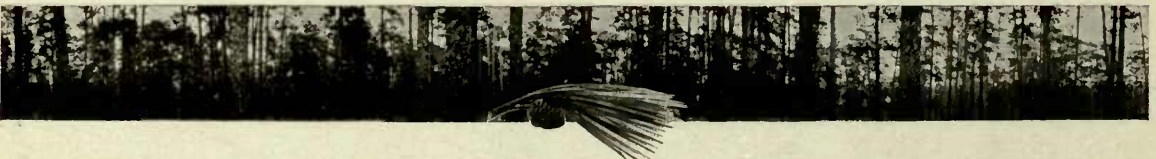
The Long-Bell Creosoting Method

THE Long-Bell method of creosoting is known as the *Pressure-Vacuum* treatment. This is the most thorough and efficient method, because it does the work in such a manner that the entire sapwood is thoroughly impregnated through and through with creosote, and not merely on the surface or in spots. But the Pressure-Vacuum treatment is not possible unless the equipment is complete, and this equipment is so huge and complicated that it is out of the question for the individual farmer to have a creosoting plant of his own operated on this principle. Furthermore, the economic side of wood preserving is a big handicap to

the farmer who tries home-made methods. The farmer can seldom obtain a high quality creosote and as his purchases are in small quantity, the cost is relatively high. Furthermore, the use of an open tank, as commonly employed in home treatments, means a considerable loss of creosote by evaporation.

It is obvious that posts creosoted with the Pressure-Vacuum treatment will more than live up to the claims we are making—namely, to give perfect service and satisfaction for at least 35 to 50 years.

The Long-Bell Pressure-Vacuum treatment insures complete impregnation. It represents the most advanced ideas in making posts



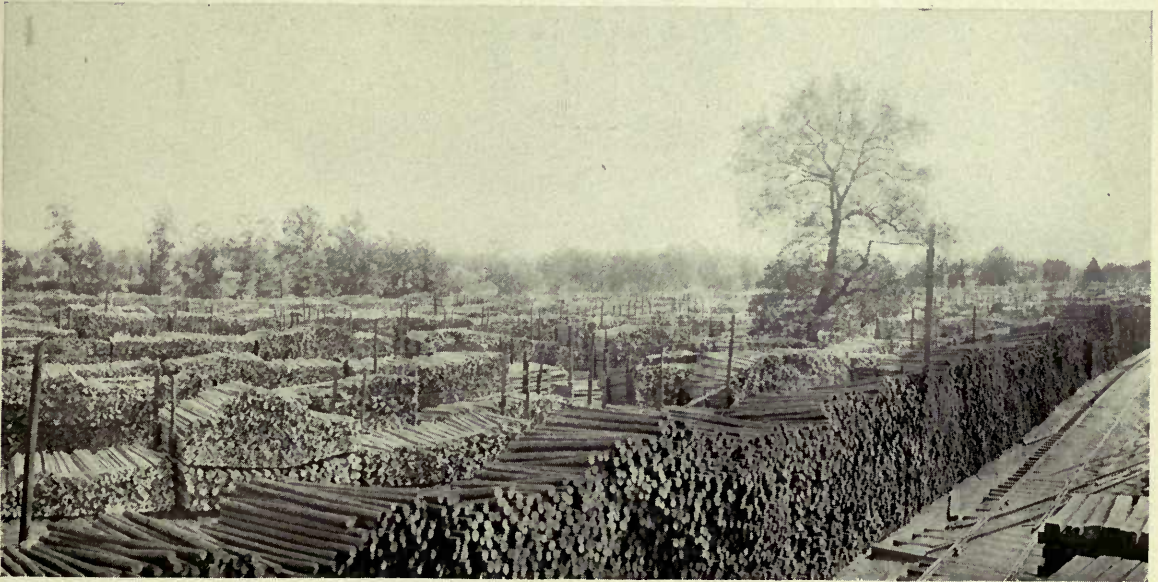


decay-proof, and requires equipment only possible because of this organization's vast resources and extensive research work to benefit the farmers of America.

All L-B Creosoted Yellow Pine Fence Posts are treated full length by the Pressure-Vacuum process. The posts, ready cut to required sizes, with all bark peeled off, thoroughly air-seasoned, are loaded in cages especially constructed for the purpose and run right into large air-tight steel cylinders, after which the cylinder doors are closed and the cylinders filled with creosote from ele-

monthly capacity of three hundred thousand posts and poles, in consequence of which the cost of treatment per post or pole remains very low.

Aside from the actual operation at our three creosoting plants, this company has developed efficient methods of handling posts and poles direct from the pine forests to the plants and thence to the distributing points throughout the country. Doing business on a large scale enables us to keep the cost per post down to a reasonable figure and, considering the permanency represented by L-B



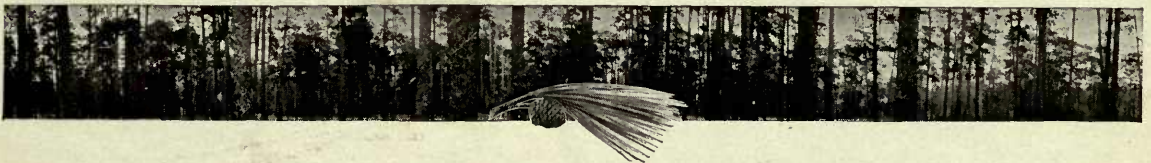
Partial view of immense post and pole storage yards of The Long-Bell Lumber Company's Creosoting Plant at Shreveport, La. Large and well assorted stocks insure prompt shipment.

vated tanks. Pumps, exerting very high pressure, are then put into operation and the creosote forced into the wood until the cells of the sap-wood are practically filled, after which a powerful vacuum is applied and the surplus oil drawn from the wood.

The three L-B creosoting plants have a

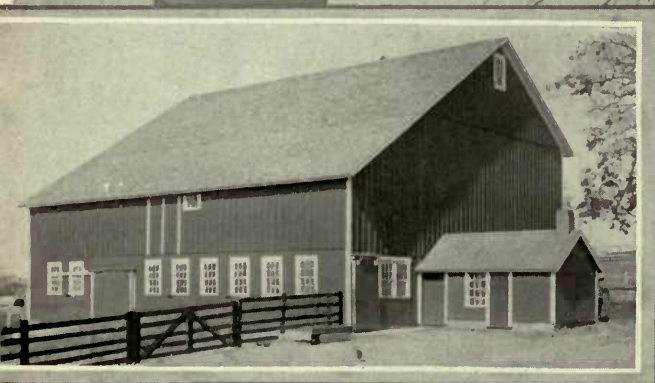
Posts for fence construction, these posts are by far the most economical of all.

Every phase of the production of treated posts from the pine forests to the creosoting plants and from the plants to distributing yards has only one feature as the goal—the complete satisfaction of the purchaser, for the actual use is the real test of quality.





THE LONG-BELL



FARMING is America's biggest business. To enjoy the greatest measure of success, the farmer must cut down waste. The buildings of the farm should represent permanent construction wherever possible because the initial cost of lasting improvements is reasonable and the up-keep very low.

Successful farmers and stock raisers are realizing more and more the value of permanent construction. The man with ten acres and the man with five hundred acres are alike in knowing the money-saving value of Long-Bell Creosoted Yellow Pine Products—Fence Posts, Barn Poles, Floor Blocks and other decay-proof improvements.

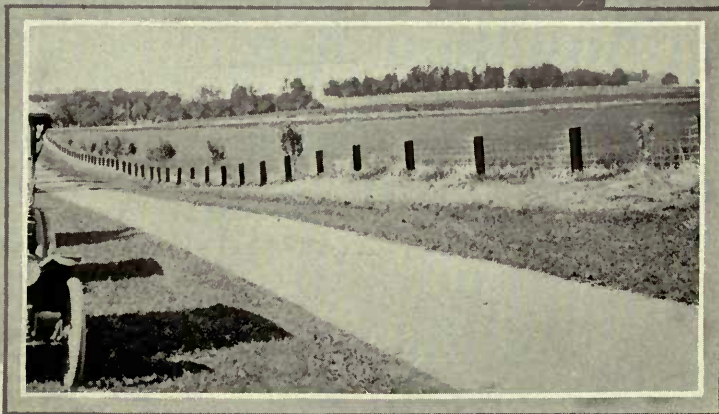
Aside from the practical value of permanent construction on the farm, there is the added value of good looks—an asset of the first

L LUMBER CO.



importance. In the old days it was merely a question of putting up any kind of a structure—any kind of a fence. Today ways and methods are changing. This change has been in progress for a number of years. The old is making way for new and better methods, a fact amply proved by the wider realization on the part of farmers of the importance of building for the future.

Farmers know the good business judgment and sound economy of making improvements so that all repairs and replacements will be reduced to a minimum. Long-Bell Creosoted Yellow Pine products are supplied by lumber dealers throughout the United States. Look for the L-B Trade Mark—it is branded on all genuine L-B products and is your guarantee of quality.





What Wood Preserving Has Saved American Railroads



WOOD preservation, while comparatively a recent development for general use, has been practiced by American railroads for years. The railroads use immense quantities of ties, poles, piles, bridge timber, etc., and took up creosoting in order to reduce the enormous cost of repairs and replacements of untreated wood that lasted only a few years.

These large users of creosoted wood have some very interesting things to say regarding their experience and these deductions are of prime importance to farmers anxious to reduce the cost of fence repairs and replacements to the lowest possible margin.

The Houston & Texas Central R. R. reported 150,000 creosoted pine ties that lasted 19 years and gave complete satisfaction.

The Southern Pacific reports that 70 million feet of creosoted pine ties and piles lasted 20 years and were in fair condition when discarded.

The Atlantic Coast Line got 27 years of perfect service out of creosoted yellow pine ties—the ultimate failure being due to rail-cutting.

The Santa Fe System removed creosoted piling from the Galveston Bay Bridge that was sound to the core after 37 years.

In "Records on the Life of Treated Timber in the United States," compiled by Howard F. Weiss, director of the Forest Products Laboratory, the following important test is given:

"In 1875, 150 creosoted pine piling were placed at Galveston, Texas; when inspected in 1903, after 28 years of the most severe service, these piling showed that they were practically intact, certainly convincing proof of the value of creosoted timbers, poles, posts, etc."

Time alone tells the story of the enduring qualities of creosoted wood. The foregoing experiences of the railroads, spread over so many years, demonstrate beyond a doubt, do they not, the durability of properly treated wood? The American farmer needs no additional proof that the use of Long-Bell Creosoted Yellow Pine Products will reduce to a



This picture shows a charge of posts (16 cages or tram cars) after leaving treating plant. Note creosoted ties in background.

minimum the repairs and replacements that occur with expensive frequency when native, untreated wood or any other material is used.





European Farmers Have Been Using Creosoted Posts for 50 Years

FACTS and figures proving the effectiveness of creosote in destroying all agencies of decay in fence posts as pertaining to the United States are based on tests made by some of the largest industrial concerns and public service corporations, as well as the individual experience of farmers and officials of the national and state agricultural departments. To see the actual results of proper creosoting after years of service, we must turn to Europe for definite data, because European countries have tried the process and sufficient time has elapsed to gain practical information as to the value of the Creosoting treatment. Creosoting fence posts is a new idea in America, therefore, we must accept the demonstrations of Europeans in reaching conclusions as to the invaluable properties of creosote in preventing decay and lengthening the life of posts from a few years to a quarter of a century or more.

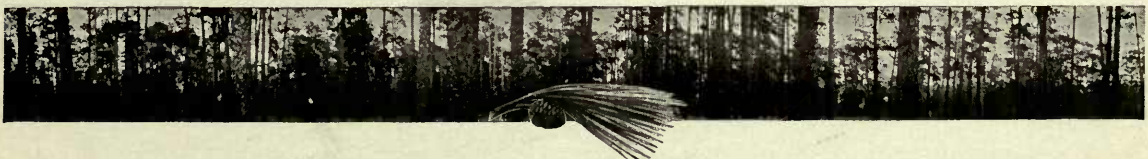
The Official Circular of the County Councils Association (of England) states that where creosoted material is used, there is practically no upkeep cost, as neither painting, tarring or other preservative work is necessary, whereas, galvanized iron roofing must be painted to obtain the best results. Even iron fencing must be tarred, varnished or painted periodically, or the rust will cause serious depreciation, whereas creosoted material—once erected—needs no annual expenditure. Creosoted Fencing and Buildings which have been erected from twenty to forty years are now in as good, or almost as good, condition as when put up.

Analysis of Statements:

Here are the facts—a table giving certain users of Creosoted Fences and Buildings, showing just how long the material has been in use, and its present condition:

Creosoted Fences

USER	LOCATION	YEARS ERECTED	PRESENT CONDITION
H. H. C.	Rugby	10	Sawn down middle for other posts. All posts good as new.
C. B.	Ely	42	Is sound and has required no repairing.
R. E. T.	Whitby	38	Found perfectly sound.
F. H.	Knapwell	25	As good as the day it was put up.
W. B. C.	Cambridge	34	Standing remarkably well.
H. G. G. P.	Warwick	20	Been taken up and used again.
A. E. C.	Norwich	30	In good condition. Used in viaducts; all other timber renewed thrice. No creosoted timber renewed.
J. C.	Liverpool	20	In good condition. Expect to last another 20 years.





View of the famous Bidwell Scotch-Shorthorn Stock Farm, Tecumseh, Mich. Long-Bell Creosoted Yellow Pine Posts used as part of the excellent permanent construction on this farm.

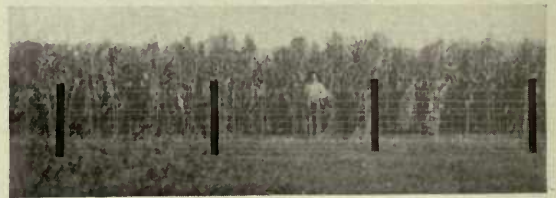
Government Tests Prove Yellow Pine Gives Cheapest and Best Service

L-B CREOSOTED FENCE POSTS are made of selected Long Leaf Yellow Pine. For genuine economy and perfect service, this wood is unequalled. The United States Government, by actual tests, has proved Long Leaf Yellow Pine to be far superior in breaking strength, shearing strength and elasticity to either Red or White Cedar. The following table, based on the Government test, shows in pounds per square inch the comparative strength of various woods:

SPECIES OF WOOD	Breaking Strength Lbs.	Shearing Strength Lbs.	Elasticity Bending Strength Lbs.
LONG Leaf Yellow Pine .	8700	1070	1630
WHITE OAK	8300		1250
WEST. RED CEDAR . . .	5200	720	950
NOR. WHITE CEDAR .	4200	620	640

The above table leaves no doubt about the strength of Long Leaf Yellow Pine. It

proves conclusively that it has *more than double* the breaking strength of White Cedar and *almost double* that of Red Cedar. Furthermore, these Government figures prove that Long Leaf Yellow Pine has more than a third more shearing strength than White



Built to stay—L-B Posts used.

Cedar; almost a third more than Red Cedar and more than double the elasticity of either. That is why Long Leaf Yellow Pine is the timber selected to undergo the Long-Bell Pressure Creosoting Treatment.





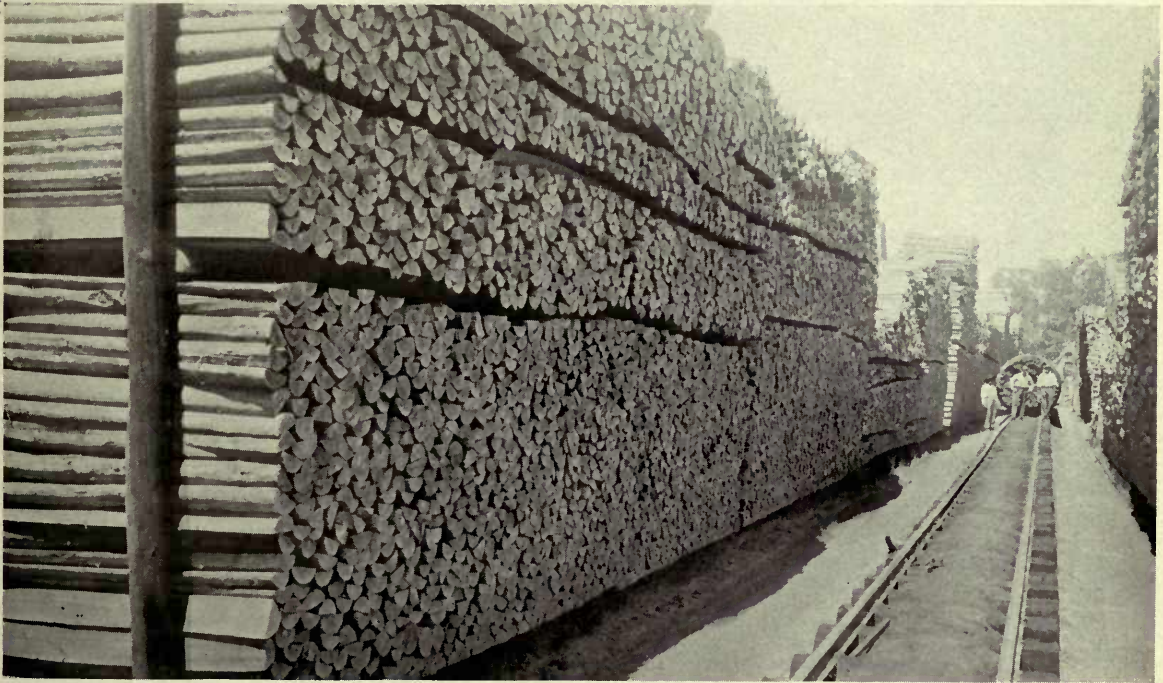
Other Treatments are Merely Temporary

ALL methods of creosoting, aside from the Pressure system, are temporary. The United States Government, in Bulletin No. 78, issued by the Department of Agriculture, classes them as superficial treatments, and this classification is only too true, because all methods, excepting only the Pressure treatment, are nothing more or less than superficial.

They fail to force the creosote to a sufficient depth into the wood to make the

sure method is the one and only method that does the work in a satisfactory manner. Heretofore this method was not available in a commercial way, and post users had to be content with posts subjected to temporary treatment, with a brush, by dipping, or by the open tank process.

The huge equipment necessary, the help required and the economic features essential in treating and distributing a product of nation-wide use, are the points to be con-



Posts piled for seasoning at one of The Long-Bell Lumber Company's Creosoting Plants. Each plant has a capacity for treating thousands of posts and poles daily.

treatment really effective. Creosote must penetrate the sap-wood thoroughly to be of any lasting benefit in preserving it.

It is now recognized by authorities and practical farmers themselves that the Pres-

sidered. Old methods have given way to the newer simply because the old were inefficient at best—and consequently they were costly and never satisfactory. Pressure vacuum treatment has been found the most effective.





Requirements for the Perfect Fence Post



ONLY

the fence post that is to give years of satisfactory service and stand as a sure and strong foundation for your wire fencing, will represent the following requirements:

First: It must be decay-proof—strong and durable—good for a life-time service.

Second: It must offer a good, firm bed for staples—a bed that stays good—that will not decay and cause the staples to loosen and fall out in a few years.

Third: It must be strong enough to keep stock from breaking through.

Fourth: It must have good ground bearings to set firmly in the ground and thus hold the fence rigid and straight.

Fifth: It must be good to look at—smooth and neat in appearance throughout its term of service.

That's the *Perfect Post* and all these requirements are found in *L-B Creosoted Yellow Pine Fence Posts*—"The Post Everlasting."

Untreated posts don't last. They rot and splinter—they are even poor fire-wood after a few years. Ordinary posts have meant a tremendous waste to the farmers of America. The question is—*How Much Longer Will the Farmers Stand This Annual Loss?* In these days when the Government is lead-

ing the way in conservation of natural resources, and requesting sensible thrift on the part of all Americans, it is imperative that



"The Post Everlasting"—the perfect post—adds value to the farm.

farmers make the start now to prevent all waste and loss due to fence post decay, now that the task has been made simple and easy.





LONG-BELL Creosoted Yellow Pine Posts Last for Fifty Years

OWING to the Long-Bell method of treatment with creosote, L-B Creosoted Yellow Pine Posts are weather-proof and practically decay-proof. It is a conservative estimate to place the age of their usefulness and service at from 35 to 50 years.

In urging the farmers of Iowa to use creosoted posts, the Agricultural Experiment Station has this to say in Bulletin No. 158:

"One of the big expense bills that the Iowa farmer pays annually is for fence posts. If the 25,000,000 posts required each year for Iowa fences were set in one line and placed a rod apart, they would build a fence three times around the world at the equator; their cost would be nearly \$5,000,000—yet numerous tests extending over many years, made by the Agricultural Experiment Stations, show that this heavy expense may be cut in two by preservative treatment which will lengthen the life of wooden posts to 25 years."

The saving of this vast sum would mean an allowance of over \$23.00 for each farm in Iowa.

The farmer who heretofore has employed himself and his hired men at replacing decayed and broken fence posts, stretching wire, driving staples and otherwise fixing broken down fences on rainy days, will soon have that time to spend in a more congenial way. The old, rainy-day job of fence fixing on the farm is fast passing, now that the farmers of America can obtain *L-B Creosoted Yellow Pine Posts*—"The Post Everlasting"—at their local lumber yards at a price only slightly in excess of that paid for the old style posts—the untreated, short-lived kind that rot, splinter, peel and break.

Fence posts of the ordinary kind, whether cut at home or bought from a lumber dealer, cost money. Wire fencing costs money; the time and labor required to maintain a fence, made the old way, costs money, as do also cattle and other farm animals lost by death

on account of bad fencing. Farm fencing represents a large investment and real fence economy is realized only by using the very best wire and stringing it on posts that will give lifetime service.

Untreated, sapling posts which were unable to stand the strain of unruly livestock, soon rotted, broke down, and became of less value than no fence posts at all.



This photograph shows Long-Bell Yellow Pine Posts with bark removed, just before shipment to Creosoting Plant. These posts are attractive in appearance. They do not vary more than an inch from specified lengths. Each post is smooth and clean, and uniform in color, after treatment.

Treated Posts—*The Long-Bell Kind*—are put in to stay. They require no replacements after a few years—are lasting and will keep within or without the enclosure even the most unruly animals. They will also withstand the elements, rot and decay.





For barn-yards, corrals and feed lots Long-Bell Creosoted Posts and Creosoted Fencing Boards make an incomparable fence, both as to service and permanency.

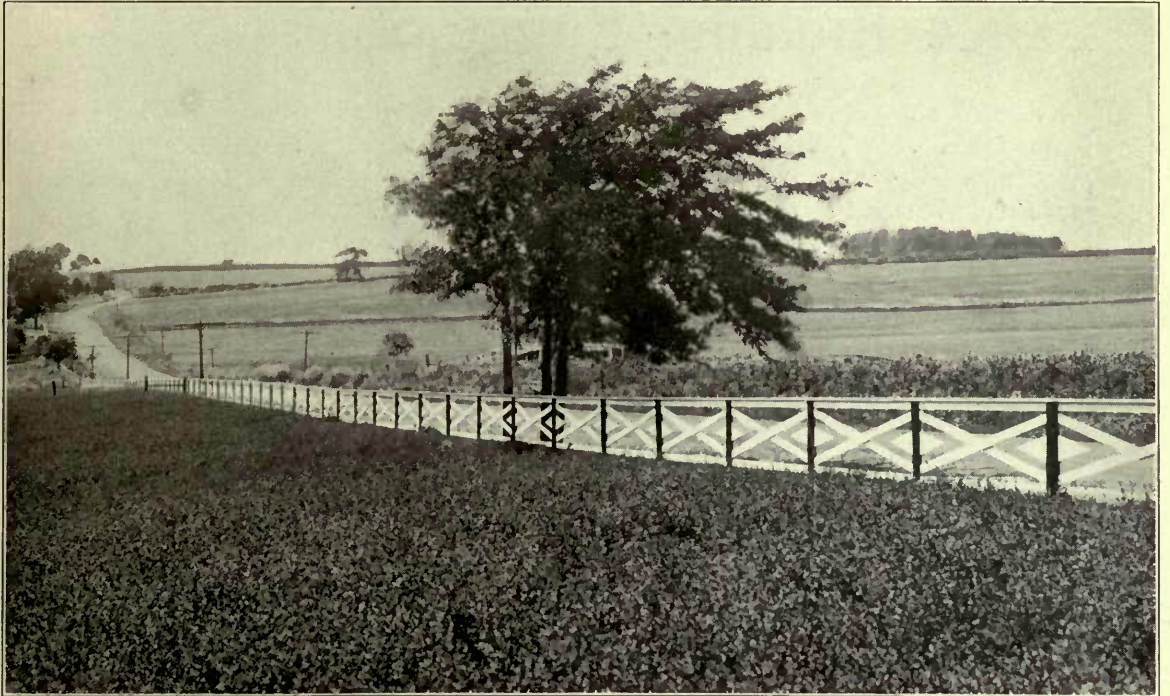
Posts That Give Lasting Satisfaction

UNSOLICITED testimony from farmers and stock raisers as well as companies using Long-Bell Creosoted Yellow Pine Posts in larger quantities, tell the same story of satisfaction. Since introducing posts treated according to the Pressure-Vacuum method several years ago their use has become widespread. Many of the most prosperous farms in the country have fences built with these posts. A large number of stock farms are now using nothing else in fence building. Hundreds of miles of right of way and other railroad property are protected with fencing held straight and strong

by Long-Bell Creosoted Yellow Pine Posts.

The farmer who is a discriminating buyer of improved farm machinery—the man who knows that good equipment reduces cost—is likely to be a man who will see the advantages of permanent fence construction the quickest. And this is the case—Long-Bell Creosoted Yellow Pine Posts are found everywhere, but most frequently on farms whose owners are dominated by sound business judgment. These posts are found on farms of every size, from suburban truck gardens to the large farms in the great Corn and Wheat Belt of the country.





Long-Bell Creosoted Yellow Pine Posts used as foundations for ornamental fences insure stability.

End Your Fence Troubles Now

NO TIME is better than the present for any farmer to make a start replacing his old posts. The longer you delay—the greater your task. Make replacements gradually—50 to 100 posts at a time. The work will be easy—you can do it alone, if necessary.

Make an inspection of all your fences. Take an inventory of the exact condition of the posts. You will then know just where you stand on the subject of repairs and replacements. It will be a simple matter to figure the number of posts you will require and by calling on your lumber dealer, you can readily estimate the cost of replacing all your old decayed posts with *L-B Creosoted Yellow Pine Posts*.

Fifty Years of Service With L-B Creosoted Posts

The "L-B" Trade Mark branded on the end of each *L-B Creosoted Post* is a guar-

antee of quality—it means the post has been treated the Pressure-Vacuum way—not brushed or merely dipped.

Our immense organization includes direct representatives or dealers selling *Long-Bell Creosoted Yellow Pine* products in many thousands of towns and cities throughout the United States. This gives us national distribution and places every farmer interested in creosoted posts or other treated timber for any purpose, as near our big creosoting plants and mills as though they were next door neighbors.

Shipping in carload lots reduces freight charges to the very lowest. Efficiency in handling and perfect distribution makes for low prices. These are some of the reasons why *L-B Creosoted Yellow Pine Posts* cost the farmer so little in comparison with their worth.

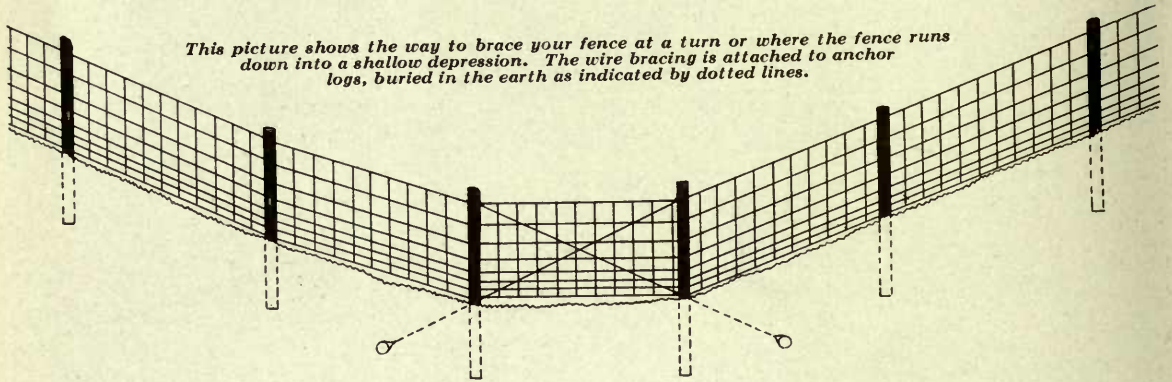




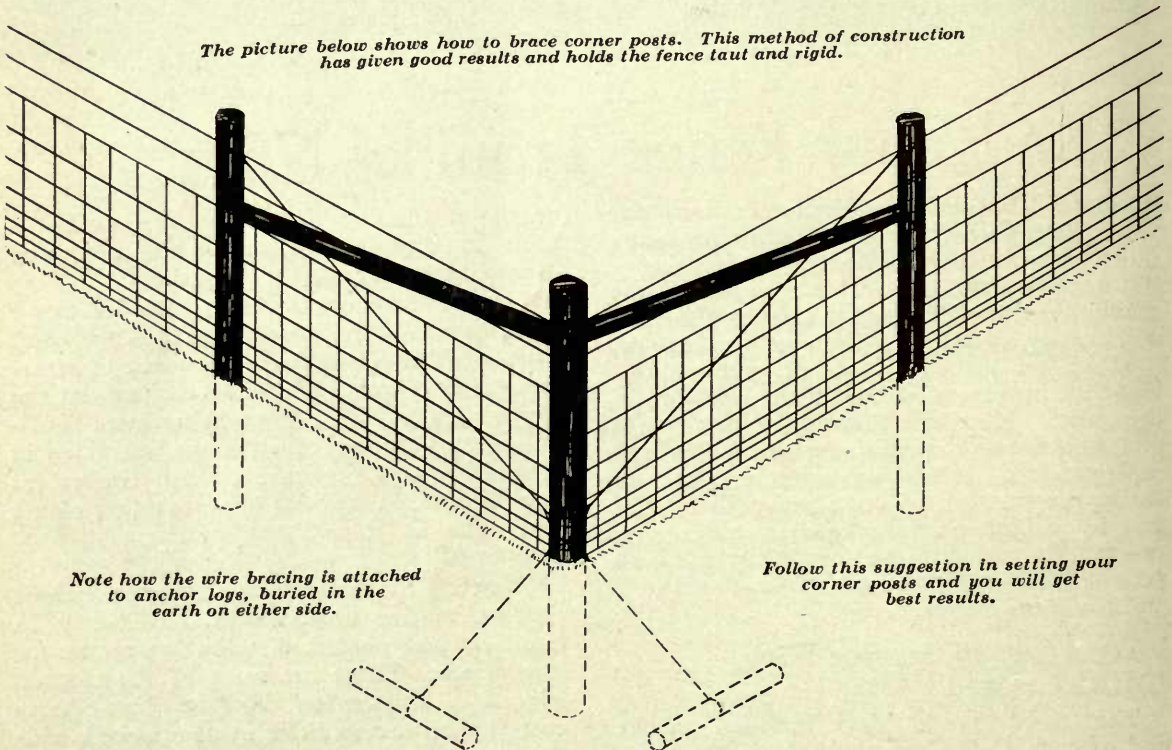
Fence Building Suggestions

Below we offer a few suggestions in building a better fence. Good, rigid, well-braced corner and gate posts are necessary in order that your fence will stand strong and true.

A little time and trifling extra expense will insure a better construction job, that will return big dividends in lasting and satisfactory service.



This picture shows the way to brace your fence at a turn or where the fence runs down into a shallow depression. The wire bracing is attached to anchor logs, buried in the earth as indicated by dotted lines.

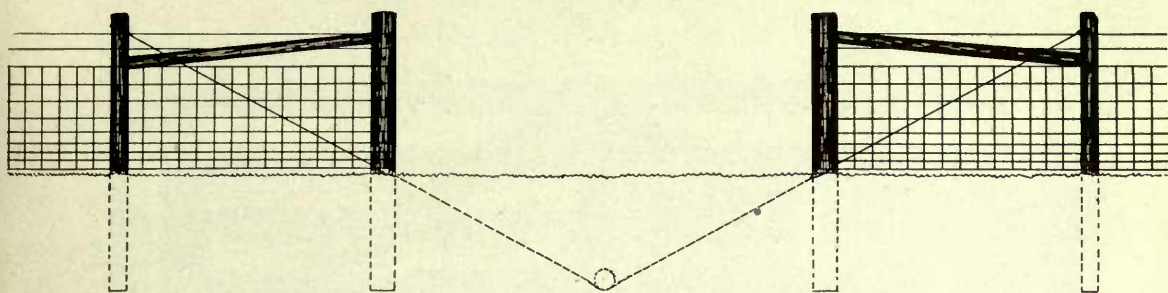


The picture below shows how to brace corner posts. This method of construction has given good results and holds the fence taut and rigid.

Note how the wire bracing is attached to anchor logs, buried in the earth on either side.

Follow this suggestion in setting your corner posts and you will get best results.





The above diagram shows how to brace gate posts in order to secure rigid construction. Your gate will hang evenly and always swing with ease if the gate posts are well braced.

Fence Corner and Gate Construction

AS one weak link nullifies the usefulness of a chain, so the use of a single ordinary timber weakens an otherwise perfect fence. Some farmers have used an ordinary 4x4 as a corner post brace or gate post brace, but with unsatisfactory results. The untreated timber soon decays and must be replaced in a few years at best. As each passing year demonstrates the fact that the value of a farm is increased or decreased to a great extent in proportion to the efficiency and appearance of its fences, it would be well to take every precaution to avoid imperfect fence construction.

Experience has taught that the points of greatest strain on a fence are the corner posts and those posts placed at turns or on uneven ground. The first of the accompanying diagrams illustrates the most approved method of bracing at a turn or a depression in the ground. The brace wires, attached to the tops of the posts and to anchor logs buried in the ground, form a cross-brace which insures perfect rigidity.

The second illustration shows corner construction, in which the same principle of wire construction is employed. However, further strengthening is advisable at this, the vital point of the fence. This additional strength is gained by using Long-Bell Creosoted poles, 10 ft. or 12 ft. length, for the brace as shown in diagram. Where the brace post is placed closer to the corner use either group No. 1 or group No. 2 round 8-ft. posts for braces.

Care should be taken to order posts of the exact length desired. It is better if the post is too long, to dig the hole deeper rather than to cut off the top, as by using the entire length you do not sacrifice any of the preservative qualities of the Creosote with which the ends of every Long-Bell Creosoted Post are sealed.

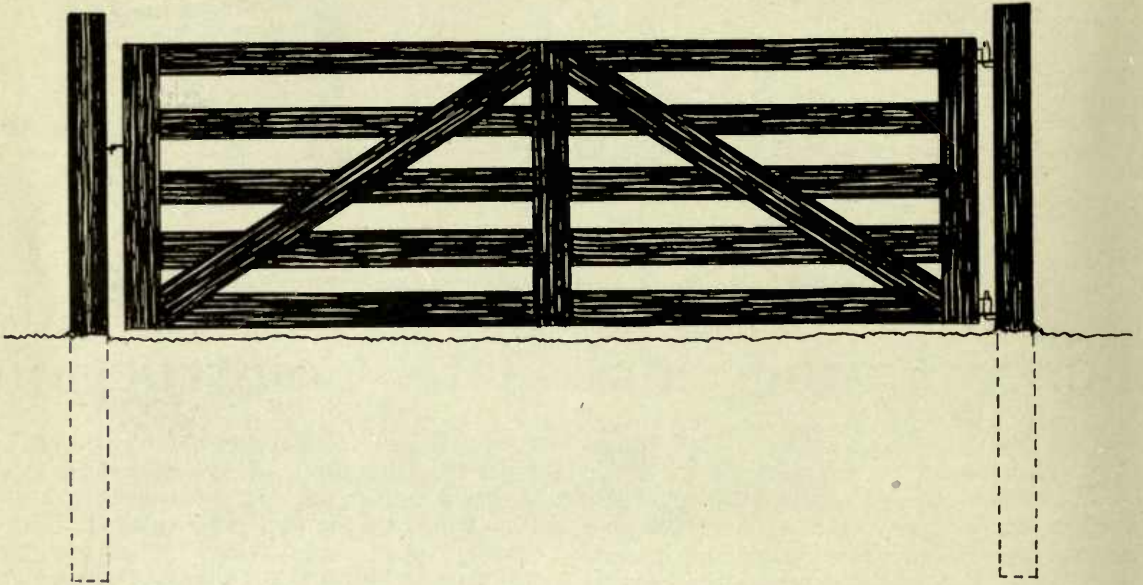
Gate posts will quickly show the effect of improper bracing. Lack of rigid construction means a sagging, undependable gate, difficult to open and close, and a constant source of annoyance. By using L-B creosoted gate posts (preferably our group No. 4 round 8 ft.), and bracing them as shown in accompanying diagram, you obtain the most perfect gate post construction. Your gates will hang true and unswaying, not merely for a short period, but permanently.

In the corner and gate construction shown in these diagrams, group No. 4 round 8 ft. post is used for corner and gate posts, group No. 3 round 8 ft. for brace posts, and group No. 5 round 10 ft. poles for braces. Where a larger corner or gate post is desired, our Jumbo will be found ideal. Jumbo posts are round, 8 to 10 inches in diameter at top, and 10 feet in length.

While only two sizes of L-B corner and gate posts are mentioned above, other stock sizes can be supplied.

Where permanence, service, attractive appearance and true economy in fence construction are desired, there is no substitute for *The Post Everlasting*.



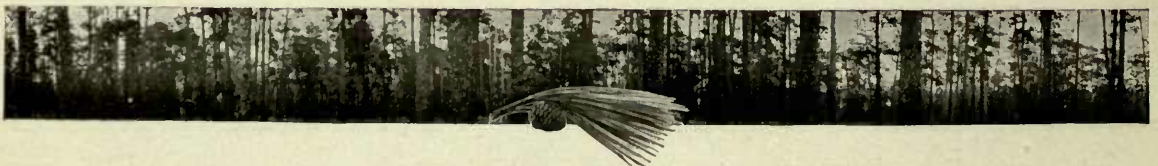


A well constructed gate saves annoyance, expense and worry. Use L-B Creosoted Yellow Pine Fencing Material.

LONG-BELL Creosoted Materials for Farm Gates and Fencing

THE gate to the barn yard or corral is oftentimes a make-shift. Probably no other farm structure causes so much unnecessary labor, annoyance and eventual expense as a loose, flimsy gate. The same is true of fencing around corrals. Such gates and fences act as a constant educator of breechy animals and are a menace to the profitable handling and production of live stock.

Woven wire without barb wire is unsatisfactory on account of stock rubbing and mashing out of shape. Barb wire around small enclosures is positively dangerous. The best method to follow is to use fencing material of wood, treated to withstand exposure in any weather and proof against decay. Your lumber dealer can supply you with Long-Bell Creosoted fencing for gates, corrals, barn yard enclosures, etc. In the event you cannot be promptly supplied, write us direct.





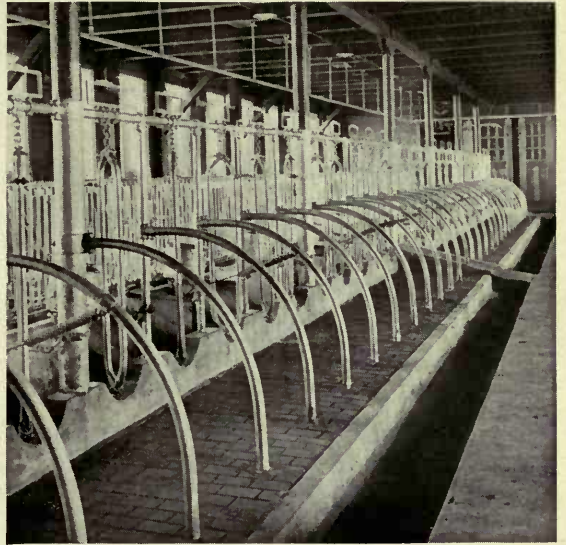
Floors of Creosoted Yellow Pine Blocks are Durable, Sanitary and Safe

THE greatest problem in constructing a barn, stable or hog house, is the floor.

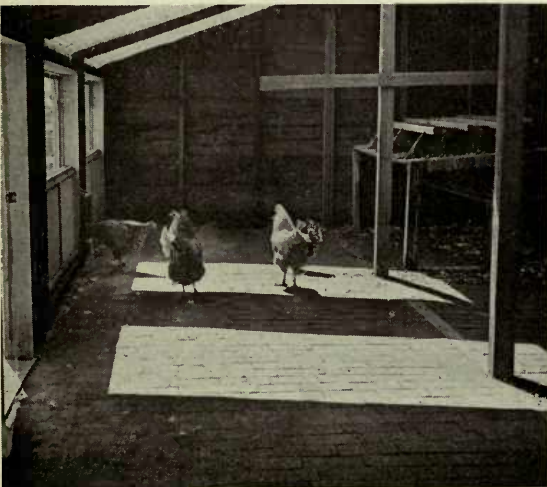
Many points are overlooked by the average man when the construction of livestock buildings is under consideration. Of course, the erection of the walls and the completion of the roof are important—very important, too—but the real problem is *The Floor*.

It has been said that "A Barn is no better than its Roof"—but there should be added "or not better than its Floor." It is a simple task in these modern days to build a roof that is rain-proof. The erection of walls that are weather-proof is equally a simple task. The floor has been the real problem.

The *Perfect Floor* is of wood—but in a form that overcomes any and all previous objections to wood, namely, *Creosoted Yellow Pine Blocks*. Properly laid, a floor of Creosoted Yellow Pine Blocks is the most durable, the most economical, the most sanitary, and the safest floor of all.



Long-Bell Creosoted Yellow Pine Blocks build the ideal floor—sanitary, safe, disease-proof. Easy to clean and keep clean.



The chicken house should be free from pests and parasites. Long-Bell Creosoted Yellow Pine Floor Blocks are first requisites to chicken health.

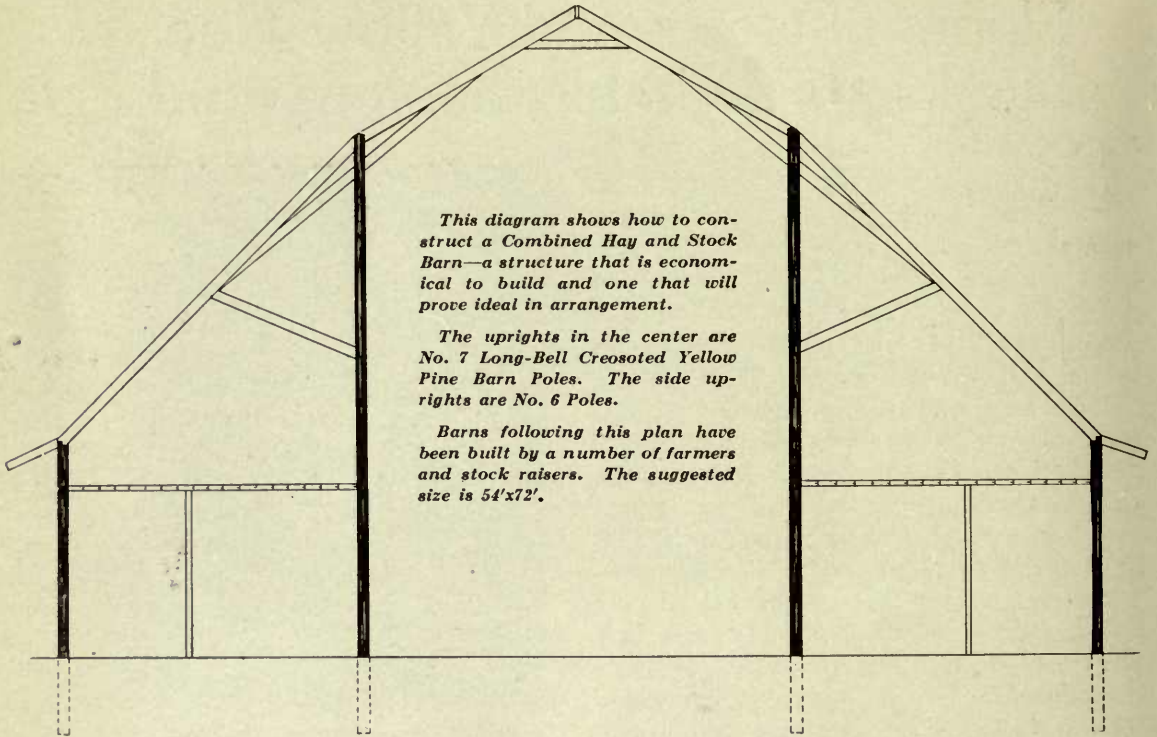
LONG-BELL Creosoted Yellow Pine Block floors are most economical because they need no repairs or replacements under ordinary conditions, or if they do in isolated cases, such repairs are easily made—simply the lifting out of a block or two—first cost is the one and only cost.

Creosoted block pavements laid in New Orleans in 1871, and Galveston in 1875 (half a century ago) are today in excellent state of preservation, giving perfect service and satisfaction.

A plank floor is uneven, it warps or shrinks and presents a surface that is dangerous to livestock as well as the farm owner or his help, and soon becomes very unsanitary.

Concrete or stone are not the materials suitable, in any sense, as flooring for any farm building. They are cold and hard and retain frost many days after the temperature has risen.





This diagram shows how to construct a Combined Hay and Stock Barn—a structure that is economical to build and one that will prove ideal in arrangement.

The uprights in the center are No. 7 Long-Bell Creosoted Yellow Pine Barn Poles. The side uprights are No. 6 Poles.

Barns following this plan have been built by a number of farmers and stock raisers. The suggested size is 54'x72'.

Combined Hay and Stock Barns

FEW practical farmers would have respect for the judgment or business ideas of the manager of a milling concern who would store on the ground, in the open, exposed to the elements, bran, shorts or other mill feeds. In the alfalfa producing states, millions of tons of alfalfa, which when cut had fully as high a feeding value, ton for ton, as the best bran, are annually stacked in the open, deteriorating from 20% to 70% in actual feeding value before being fed or shipped.

The following is quoted from an article in *Hoard's Dairyman*:

“Unfortunately, no choice and only a very small amount of No. 1 hay has been produced from the first cutting of alfalfa in Kansas, Oklahoma and other important producing sections in surrounding states. The bulk of the hay produced from the first cutting is grading standard or of poorer quality—more generally the poorer quality. In the arrivals of new hay to the Kansas City market thus far this season, Kansas and Oklahoma have not contributed a single car of choice hay, while the offerings of well-cured No. 1 alfalfa of the new crop from these two important producing states have been insignificant. But there has been an abundance of poor quality hay, sales having been made as low as \$10.00 a ton, with some offerings not receiving bids above \$8.00 a ton.”

The Kansas State Board of Agriculture estimated a year's yield of alfalfa in that State from the first cutting at 1,647,000 tons, produced from a total area of 1,288,000 acres. A conservative





estimate of the loss accruing to the farmers of Kansas from low grade hay, the product of this first cutting, would be \$10.00 per ton, aggregating the enormous total of \$16,470,000.00. This is sufficient to construct on more than one-third the alfalfa farms in Kansas, an attractive, substantial creosoted pole barn, of ample dimensions to shelter all of the hay and cattle produced on the average farm unit. Statistics from Nebraska, Oklahoma, Texas, Colorado and other alfalfa producing states will doubtless show proportionate losses, fully half of which, with sufficient storage at hand, could have been avoided.

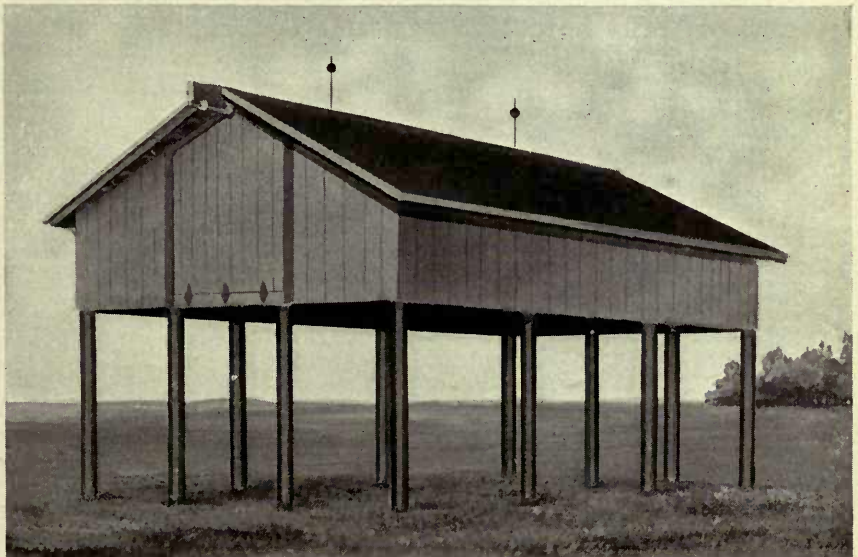
LONG-BELL Creosoted Barn Poles

THERE is a rapidly increasing demand for a straight, durable and attractive pole for use in construction of barns, hay sheds and for various other purposes. Practically all lengths of these poles are carried in stock by dealers; they possess the same L-B quality that is guaranteed under the L-B Trade Mark—each pole having received pressure-vacuum treatment with creosote—the perfect pole.

We have L-B Creosoted Yellow Pine products for all farm uses. The success that has attended the introduction of L-B Creosoted Yellow Pine Fence Posts has proved conclusively that the farmers will choose material that eliminates decay and cuts down upkeep in preference to ordinary

timber, untreated, that decays and rots after a few years and must be repaired or replaced.

A hay barn that will withstand exposure in all seasons is now possible. Long-Bell Creosoted Yellow Pine Barn Poles are in growing demand because they defy the elements and the fungi of decay. Your lumber dealer can supply you.



A Hay Shed built with Long-Bell Creosoted Yellow Pine Poles. These poles withstand all exposure to the elements above ground and are decay-proof below ground.





Long-Bell Creosoted Building Materials

SLIP-SHOD, temporary methods of construction on the farm are rapidly passing. They have proved too expensive. Progressive farmers today look to every detail of their equipment and improvements with the idea of permanence. They are alert to the advanced methods of construction that save them money year after year, not only on materials, but on the cost of labor as well. This forethought in construction adds to the value and enhances the appearance of any farm place.

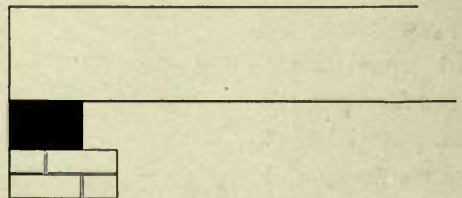
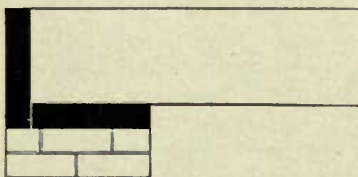
Long-Bell Creosoted Yellow Pine Posts, Poles, Blocks and Timbers reduce the cost of farm improvements to a minimum, because the first cost is practically the only cost. They are dependable, strong and sturdy for any use.

The use of creosoted sills, joists and similar parts of barns, houses and other

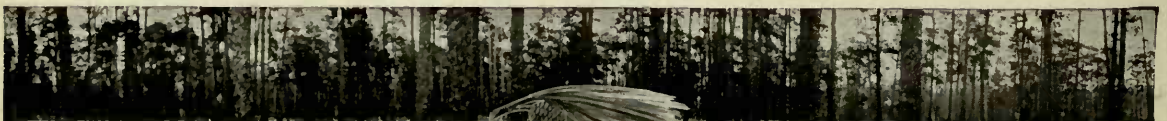
buildings exposed to dampness, weather and the fungi of decay, will, at a comparatively small additional cost, multiply many times the life of any structure. In planning improvements, you will do well to investigate the big saving the use of properly treated lumber and other materials will mean.

Yellow Pine in itself is one of the strongest and most elastic of woods, and the modern pressure-vacuum method by which it is treated, preserves this unusual natural strength for many, many years. Replacements and repairs are seldom necessary.

Long-Bell Creosoted Products are obtainable at lumber yards carrying **THE POST EVERLASTING**. If your dealer cannot supply your requirements, or if more detailed information is wanted as to the economy and satisfaction obtainable from the use of these materials, write us.



These diagrams show creosoted lumber used to protect sills and plates against the elements and decay.



Lumber Dealers Can Supply Long-Bell

Creosoted Products

LUMBER DEALERS in practically every section of the United States can now supply Long-Bell Creosoted Yellow Pine Fence Posts, Barn Poles and Floor Blocks and Building Materials. With greatly enlarged capacity at our three big creosoting plants, we are prepared to make prompt shipments to our distributors.

Examine your fences now. Make note of the number of posts you need and, if preferred, make replacements gradually. If your horse or cattle barn floors need replacing, investigate Long-Bell Creosoted Yellow Pine Floor Blocks. You will find them an economic necessity and good health insurance for your stock. The same applies to your hog houses and pens and your chicken houses. When preparing to protect your hay crop investigate Long-Bell Creosoted Poles. In planning a new barn, or improving an old one, remember Long-Bell Creosoted Building Materials.

If your local lumber dealer cannot supply you, do not accept a substitute, but write us direct and we will see that your wants are supplied.

The Long-Bell Lumber Company

Manufacturer of Southern Pine Lumber, Oak, Oak Flooring, Gum; California White Pine Lumber, California White Pine Sash and Doors, 3-Ply Veneers; Creosoted Lumber, Posts, Poles, Ties, Piling and Wood Blocks.

R. A. Long Bldg.

Kansas City, Mo.



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- 2-month loans may be renewed by calling (510) 642-6753
- 1-year loans may be recharged by bringing books to NRLF
- Renewals and recharges may be made 4 days prior to due date.

DUE AS STAMPED BELOW

MAY 15 1997

12.000 (11/95)

LD 21-100m-7,39 (402s)

