

OAK FLOORING

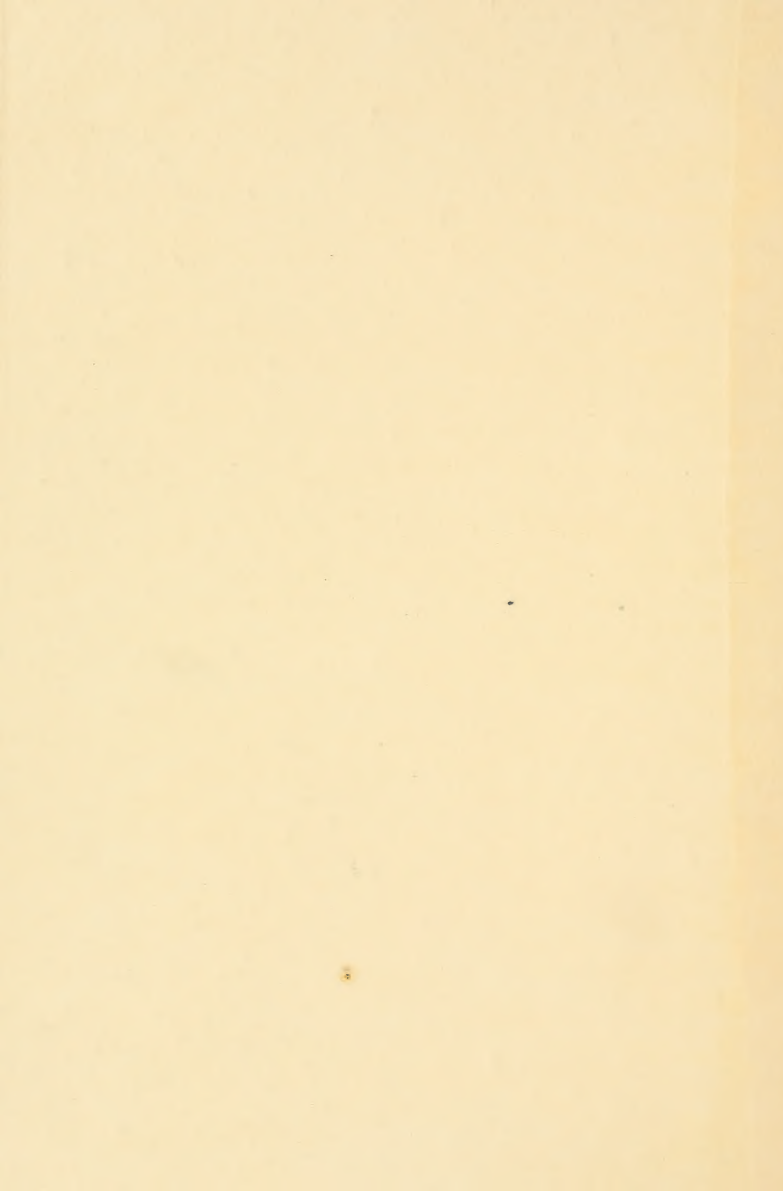
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OAK FLOORING

BEING AN OUTLINE OF CORRECT METHODS OF

MANUFACTURING, HANDLING
LAYING AND FINISHING

WITH AN ANALYSIS OF WIDTHS, THICKNESSES AND GRADES

BY
HENRY H. GIBSON

Editor Hardwood Record



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*The song of the oak, the brave old oak,
Who hath ruled in the green wood long;
Here's health and renown to his broad green crown,
And his fifty arms so strong.
There is fire in his frown when the Sun goes down,
And the fire in the West fades out;
He showeth his might on a wild midnight,
When the storms through his branches shout.*

—H. F. CHORLEY.

Introduction



THE purpose of this brochure is to impart accurate information on the subject of oak flooring. It includes a review of oak timber growth; the manufacture of oak lumber; the process of seasoning (both air-drying and kiln-drying) the wood for the production of flooring; methods of manufacturing the stock, and an outline of the classification of grades into which oak flooring is divided. Effort has been expended to make the work a practical text-book covering approved methods of laying, scraping and finishing oak flooring, with suggestions for its care after it is laid. The book involves not only the specific knowledge of the author, but is a consensus of the opinions of numerous manufacturers and users of oak flooring who, because of long experiment and experience in this line, are authorities on the subject.

To those who have assisted in contributing matter for this work the author extends grateful acknowledgment.

It is hoped that this little book will prove of interest and value to architects, builders, mechanics and users of oak flooring generally.

THE AUTHOR.

Chicago, Ill., August 15, 1909.



THE AXEMAN
Drawing by Robert L. Stearns

The Oak to the Axeman

O thou wondrous being—
Made in Jehovah's image—
Who calleth thyself man!

With a song thou liftest thy brawny arms
And the axe sinks into my heart.
Know thou, O vain and boastful one—
Who laugheth as I fall beneath thy stroke—
When thy body shall have crumbled into dust
I will form the threshold of a home
Where tender woman croons a lullaby
To sleeping babes encradled in my arms.
When the waving grass above thy head
Sighs in forgotten desolation
My sturdy planks will stand between
Thy sons and the horrors of the deep.
When thy very name is banished from men's lips,
From altars, hewn from me, will incense rise
To the everlasting God.

—IDAH McGLONE GIBSON.

The oak is the most majestic of forest trees. It has been represented as holding the same high rank among the plants of the temperate hemispheres that the lion does among the quadrupeds, and the eagle among birds; that is to say, it is the emblem of grandeur, strength and duration; of force that resists as a lion is of force that acts.

—LOUDON.

Hardwood Flooring



LOORING is the result of a long process of evolution. The primitive floor was of pounded clay, which later gave place to rough slabs of stone. The split log puncheon floor was the predecessor of the rough boards manufactured on the early types of frame saws. The dressed and jointed flooring of our ancestors gave place to the hand-made tongued and grooved floor of a later period.

It was only with the advent of the four-side planing machine that tongued and grooved strips for flooring purposes came into general use. These machines were of crude construction and did but indifferent work. It was possible to produce with them only a fair quality of flooring made from the soft woods. In New England spruce was the favorite flooring material for a century, finally giving way to white and Norway pine. These softer conifers were supplanted later by the yellow pine of the South and more recently, especially in the West, by the fir and redwood of the Pacific Coast.

Although in Great Britain and the continent, where they have builded well for centuries, native oak has been employed for flooring material in the better class of buildings for several hundred years, up to within the last ten years a floor of oak in the United States was regarded as a luxury only to be afforded by the rich.

The unsatisfactory results obtained from soft woods brought about a demand in the United States for a flooring material of good wearing qualities, beautiful, and at the same time sanitary

and hygienic. It was demonstrated that floors of such specifications could be obtained only by the use of hardwoods. Experiments were made with many varieties of native forest growth, with the eventual deduction that the highest type of wood for flooring purposes, meeting the necessary and specified requirements, must needs be oak.

Flooring machine manufacturers, recognizing the demand for equipment that would produce hardwood flooring of quality and unfailing accuracy of matching and surfacing at a low cost, put their draftsmen at work on designing a type of machine that would be heavy, strong and substantial enough to withstand the tremendous strain incident to a fast-feed woodworking tool to mill hardwoods. Success crowned their efforts and such machines were put on the market by several leading manufacturers. Thus it will be seen that necessity, backed by the efforts of woodworking machinery makers, was the chief factor in making it possible for flooring manufacturers today to turn out an eminently satisfactory product at low cost.

Hardwood floors have now ceased to be regarded as a luxury; on the contrary, they have come to be considered as a necessity in every building, from the palatial office structure to the home of the laborer. The old soft wood floor was but a temporary expedient, and the carpet with which it was covered was a disease-breeding makeshift. In reality, hardwood floors are cheaper than carpets when their durability and the cost of maintaining cleanliness are taken into account. The sanitary and hygienic qualities of hardwood flooring need no encomium.

It has been demonstrated beyond peradventure that oak, the king of the American forest, constitutes the best material for

flooring purposes. Its density of texture makes it practically indestructible through wear; the tannic acid which it contains renders it immune to decay, and its beauty of grain and figure causes it to be regarded as the most beautiful and satisfactory flooring material extant.

Oak flooring is particularly well adapted to all classes of dwellings, apartment houses, office structures, hotels and public buildings generally. To emphasize again the strong points of oak as a flooring material, there should be mentioned natural beauty, durability, susceptibility to an exquisite and lasting finish, and its hygienic qualities. Therefore it happens that the house owner and tenant alike, in choosing flooring, place the oak product foremost as reflecting personal taste, as insuring cleanliness, sanitary conditions, beauty, cheerful appearance, comfort and durability.

The builder of even a modest home can better afford to have an oak floor than not.



*It is not growing like a tree
In bulk, doth make man better be;
Or standing long an oak, three hundred year,
To fall a log at last, dry, bald, and sere;
A lily of a day
Is fairer far in May,
Although it fall and die at night—
It was the plant and flower of Light.*

BEN. JONSON.

White Oak



TYPICAL FOREST GROWTH

Red Oak



TYPICAL FOREST GROWTH

*The monarch oak, the patriarch of the trees,
Shoots rising up, and spreads by slow degrees.
Three centuries he grows, and three he stays
Supreme in state; and in three more decays.*

—DRYDEN.

The Sturdy Oaks



FROM the earliest days the oak has been regarded as the king of the forest, and of all the oaks that grow in various parts of the world the leading American varieties are regarded as the highest type.

Sudworth, in his Check List of Forest Trees, names seventy-three varieties of oak as growing in the United States. It is more than likely that Mr. Sudworth's enumeration of the different species of oak growing in this country falls considerably below the actual number, and when all the varieties are botanized it may be found that there are more than one hundred.

Commercially, oaks are divided into two varieties, the white oak and the red oak. Of the white oaks, the variety pre-eminently superior to all others is *Quercus alba*, and of the red oaks, *Quercus rubra*. Oak flooring manufacturers practically confine themselves to the use of these two species in the production of flooring. It is therefore not necessary in this brief review to go into details concerning the numerous minor varieties of the wood.

Both white and red oak are of the beech family. The trees, even in forest growth, have broad tops with spreading branches. In height they range from sixty to one hundred feet, and in diameter from one to six feet. The range of growth is from southern Maine and southwestern Quebec to central and southern Ontario, the lower peninsula of Michigan, southern Wisconsin, and southern Minnesota, and to southern Nebraska and eastern Kansas, southern and northern Florida and Texas. Depending on latitude or compensating altitude, the blossoms appear in May or June.

The highest type of *Quercus alba* abounds in the region of

which Indianapolis, Ind., is the center, and the best class of red oak ever known grew in the southern peninsula of Michigan and southern Wisconsin. *Quercus rubra*, fairly approximating in size and quality the red oak of Michigan and Wisconsin, unfortunately now practically exhausted, grows along the entire southern Appalachian range, while types of *Quercus alba* of practically the same quality and texture as the largely depleted Indiana and Ohio growth still abound in Kentucky, Tennessee and Arkansas.

Quercus alba is strictly an American wood, one that grows only in the United States and Canada, and save a small stand of Austrian oak which is reputed to be of excellent type, is in both home and foreign markets the only hardwood of the highest quality growing in abundance in the known world. The white and red oaks are easily distinguished by their foliage. The leaves of nearly all varieties of white oak have rounded lobes, while those of the red oak are invariably pointed. The bark of the white oak is also an aid in identification, as from its whiteness it gained its name.

In physical structure the white oak is of a denser texture than red. It receives and holds a higher polish, but it is inclined to vary more in color than red oak. Quarter-sawed white oak has much better figure than red and more attractive splash. Hence it is often preferred. Red oak when quarter-sawed has not nearly the well-defined splash of white oak that is regarded so highly for a good many purposes. In color red oak tends to be more uniform than white. Choice of these woods for flooring material simply resolves itself into a matter of taste, as both have about the same lasting qualities, and both varieties make a floor of unqualified excellence.

White Oak Foliage



Red Oak Foliage



The Manufacture of Oak Lumber and Flooring



THE manufacture of oak into lumber was a pioneer phase of the hardwood industry of this country. Manufacturers of oak lumber have profited by many years' experience, long training, and mechanical appliances of the very best. Expert knowledge is required in every process of oak lumber manufacture. The felling of the tree in the forest; the transportation of the timber to the saw-mill; the selection of logs by size and quality according to certain specified methods of sawing; the reduction into lumber itself; the proper piling and seasoning—all receive the most careful attention at the hands of the oak manufacturer. In looking at a beautiful oak floor few realize the infinite pains, labor and cost that were involved in bringing about the exquisite result, and the manufacture of the lumber itself was only an initial step in its production.

The making of oak flooring has become a science. The lumber may possibly be produced by the flooring manufacturer himself, but he usually buys it in the open market. It may come to him green from the saw, partially dry, or air-dried. Every piece of oak before it goes into the flooring factory must be kiln-dried, for no matter how long lumber has been air-dried it will contract and expand as soon as its surfaces are dressed unless it has been thoroughly treated by the modern method of curing by the aid of dry-air currents or steam heat. The modern method of kiln-drying lumber is based on scientific principles, the result of years of experience, and produces a uniform dryness through and

through the piece which is not possible even by years of air seasoning. The process incorporates the chemical properties of the wood that contribute to its growth with the wood fibre, so that the resultant lumber is comparatively little affected by alternate heat and dampness. Modern kiln-drying also aids in preventing decay, as it cures the wood and makes it practically time-resisting. Oak lumber not kiln-dried contracts, or "shrinks," as the lumberman would say, but when this kiln-dried stock is exposed to external atmosphere it absorbs considerable moisture and expands. Therefore, the flooring manufacturer, on removing oak lumber from his dry-kilns, leaves it at least twenty-four hours in a well-ventilated cooling-room so that the wood may regain a normal and permanent condition and one that will be least affected by heat and dampness in its future use.

The lumber thus cooled and fixed, as it were, to the point of permanence, is transferred either on trucks or by endless-chain devices to the ripping-saw tables and there cut into strips of the various widths employed for flooring. Many manufacturers then surface these strips on one or two sides; whence they go to the four-side flooring machines, which again dress the better side of the piece and cut the tongue and groove. This process must needs be exact and every few hundred feet of stock that comes from the machine is carefully tested with a steel template to see that the matching is accurate. From these machines the flooring is taken to cross-cutting tables and all knots and other defects are cut out. The pieces are then transported to the end-matching machines, where one end is tongued and the other grooved. This is what is known as end-matching, and enables the user to employ the flooring either on a dead floor or on joist foundations without any necessity of its "breaking" on the joists.

The pieces are next carefully sorted for grade and tied into bundles, with the contents plainly marked on each. This bundled flooring is then taken to a damp-proof ventilated warehouse, usually steam-heated, where it is kept ready for shipment.

This brief description but vaguely shows the detail and infinite pains necessary for the proper production of high-grade oak flooring. Every operation must be skillfully done and care must be taken at every step to insure results that shall prove satisfactory.

A taste for ornamental effects is manifested by users of oak flooring, just as in the selection of panels for hardwood doors or parlor furniture, and there is a constantly growing demand for quarter-sawed stock. Although the plain-sawed is practically indestructible, it is said that quarter-sawed oak flooring will wear longer. Quarter-sawed oak, *i.e.*, wood sawed so that the surface is at right angles to the rings of growth, exhibits a remarkably handsome figure. This method of sawing reveals the splash that occurs in the medullary rays of oak growth, especially in the white variety, resulting in a very striking but sometimes bizarre effect. Quarter-sawed oak flooring is especially esteemed for floor borders. The cost of producing quarter-sawed stock is much greater than plain-sawed, as more waste of wood is involved, the labor is heavier and only very large and high-class logs can be used.



*The oak, when living, monarch of the wood;
The English oak, which, dead, commands the flood.*

—CHURCHILL.

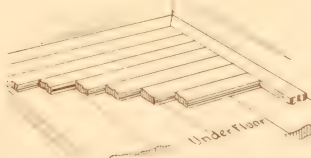
Economical Use of Oak Flooring



SRUGS are nowadays employed almost universally in homes and offices, an economical plan is to have the center section of the room laid with oak flooring of the cheaper second or third grade, and to employ only the clear or first grade in the borders of the room. As all parts of the floor would have the same appearance, not even an expert would recognize that the rug-covered sections were not made of equally as high-class material as the border.

A good deal of economy can be exercised in the laying of store floors by employing even factory or fourth-grade stock back of and under counters, and laying the aisle sections with the first or second grades.

Again, persons living in houses having old-fashioned carpeted soft wood floors, and wishing to discard them, can have a covering of $\frac{3}{8}$ -inch oak flooring laid without in any wise changing the construction of the house. This material can be put over any sort of old floor without interfering with the woodwork. It is inexpensive and will improve the appearance and sanitation of an old house more than the expenditure of double the amount of money in any other way.



SHOWING HOW THIN OAK FLOORING IS LAID OVER OLD FLOORS

Standard Grades and Sizes



HARDWOOD FLOORING is made in varying thicknesses, among these chiefly being 13/16-inch in thickness. It is also produced in 7/16-inch and 3/8-inch thicknesses, which are employed both for new floors and for re-covering old soft wood floors.

The standard grades, made by leading manufacturers and accepted by all interested in oak flooring, which apply to both quarter and plain sawed stock, are as follows:

Grades

- | | |
|---|--|
| CLEAR
OR FIRST
GRADE | Shall have finished or top face free from defects, except it may contain three-eighths of an inch bright sap. |
| SELECT
OR SECOND
GRADE | This grade may contain bright sap, a few pin worm holes, slight imperfections in dressing or an occasional small sound knot. All of the three defects named may not obtain in any one piece of flooring. |
| No.1 COMMON
OR THIRD
GRADE | This is a grade of a sound-knotted character and lays a good serviceable floor without cutting or waste. |
| FACTORY
OR FOURTH
GRADE | This grade contains such stock as falls below the grade of No. 1 Common and is of such a character as will lay a serviceable floor with a small percentage of waste. |

In an interpretation of the above rules, as well as in the selection of oak flooring, natural wood markings must not be confused with defects.

Lengths of Flooring

The question of lengths is no longer considered by the user of oak flooring, as the process of end-matching has eliminated any necessity for the employment of long pieces. It has been demonstrated that short sections make equally as good, if not a better floor than long-length stock. Neither is it absolutely necessary to have a sub or under floor on which to lay the 13/16-inch end-matched flooring.

Widths

Experience has shown that narrow widths of oak flooring are most satisfactory. The narrower the stock, the smaller the interstices between the strips, and there is thus less danger of unsightly appearance. The narrower widths of flooring, while a little more expensive than the wider ones, make the better floor. Again, the shading and figure of the wood may be blended more harmoniously than when the broader strips are employed. The use of narrow widths also obviates any possibility of the flooring strips cupping. The narrow pieces lay and stay absolutely flat.



*The tall oak, towering to the skies,
The fury of the wind defies,
From age to age, in virtue strong,
Inured to stand, and suffer wrong.*

· MONTGOMERY. ·



Plain-Sawed, Tongued
and Grooved,
End-Matched Oak Flooring.

Photographed direct from the wood—actual size.



Quarter-Sawn, Tongued
and Grooved,
End-Matched Oak Flooring.

Photographed direct from the wood—actual size.

Laying the Floor

WHERE a building has a sub-floor it is advisable to place heavy damp-proof paper over it before the flooring is laid. Where sound-proof results are desired, a heavy, deadening felt is recommended.

Any first-class carpenter can lay oak flooring in a satisfactory manner, but it must be remembered that great care is necessary in order to produce the best results. The strips must be driven up close together. It is well to place a piece of hardwood 2x4 against the tongue in driving up the flooring strips so as not to damage or bruise the top edge.

The nailing of a floor is another important feature. When not properly nailed the strips often work out of place, marring the finish and frequently making a most disagreeable squeaking noise when the floor is walked upon.

It is very essential that the proper kind and size of nails be used. Practical test has demonstrated that the very best nail to be employed in laying oak flooring is the steel cut variety for all blind nailing, and all tongued and grooved flooring should be blind nailed. The same number of cut nails driven into a strip of flooring effects a much better anchorage than a like number of wire nails.

The sizes of cut steel nails for the different thicknesses of flooring are as follows:

$\frac{13}{16}$ inch Thickness	8d Flooring Nail
$\frac{7}{16}$ inch Thickness	4d Flooring Nail
$\frac{3}{8}$ inch Thickness	3d Flooring Nail

The maximum distance between nails in the various thicknesses of flooring should be as follows:

$\frac{13}{16}$ inch Thickness	16 inches
$\frac{7}{16}$ inch Thickness	12 inches
$\frac{3}{8}$ inch Thickness	10 inches

For even better results it is recommended that nails be driven closer than indicated above.



Handling Hardwood Flooring



AK FLOORING leaves the factory in perfect physical condition. The wood has been kiln-dried, cooled, milled accurately, and has been stored in a well-ventilated warehouse. It is invariably shipped in box cars, and should therefore reach the dealer in perfect condition. Handlers of oak flooring often treat it just as they would ordinary lumber. This is a mistake and sometimes results in serious damage to the material. It should not be unloaded in rainy weather and, if the atmosphere is damp, the wagon should be covered with a tarpaulin. Flooring should be stored only in well-ventilated warehouses, and these should be kept as near an equable temperature as possible. It should never be piled in open sheds, even though protected by a roof, as any wood absorbs moisture from the air at the exposed ends. The stock then swells, impairing the accuracy of the mill work, and flooring thus carelessly handled often shrinks after having been laid, leaving unsightly cracks.

Oak flooring should never be laid in a new building while the walls and plaster are damp. The floors should be the last work done in building construction, and they should be laid only after the brick or stone work, concrete or plaster, is thoroughly dry.

To secure the best results in an oak floor, the better plan is not to have it laid until even the painting, wall-papering and decorating have been done and are thoroughly dry.



Scraping and Finishing

Scraping



AFTER flooring is laid and where a nicely polished surface is desired, it should be scraped, care being taken not to injure the surface by tearing the grain of the wood.

Scraping is essential to smooth the jointed surfaces of the floor occasioned by slight inequalities in the sub-floor or joists. The flooring itself was originally milled to exactly uniform thickness, but the difference in density of various pieces of oak, the pressure of the rolls and the slightly unequal expansion after the material leaves the flooring machines make a very trifling difference in thickness in places. This irregularity can be corrected only by scraping. This can be accomplished by means of one of several types of power and hand scraping machines which are usually owned by contractors and carpenters, or can be done by hand with an ordinary cabinetmakers' scraper. When this work is done, the scrapings swept up and the dust removed with a soft cloth, the floor is ready for the finish.

Finishing

This feature, while most important, is one on which authorities differ, but the question simply resolves itself into a matter of taste as to the tone, color and brilliancy of finish desired. Personal taste and artistic or decorative effect are the guides for the floor finisher. Primarily, the floor should be treated with a paste or liquid filler. A paste filler is recommended by a good many authorities inasmuch as it can be worked into the wood more thor-

oughly, closing the pores and crevices and producing a dense body for the final finish. A variety of tones quite as attractive as the natural wood can be obtained by incorporating coloring matter with the paste filler before it is used, or by the employment of prepared colored fillers.

The final finish consists of a coat of fine oil varnish. This should be allowed forty-eight hours or more to set, and then be rubbed down with rotten stone and oil, or with very fine sandpaper. A second coat is then applied which is also given forty-eight hours or more to set. After the second coat, if a glossy or shiny surface is not wanted, this can be again rubbed to a dull finish. This finish is lasting and durable and does not show scratches readily. The above applies only to the highest type of floor finishing.

Another authority suggests that, after the wood is filled, a coat of pure white shellac be employed. After allowing twelve hours to set, a second coat is employed, and when dry the surface is gone over with No. 0 sandpaper. After this is done, a heavy coat of good floor wax is applied, spread evenly, and rubbed well into all parts of the floor. The wax should be permitted to set for twenty to thirty minutes, and then with a weighted brush the floor is rubbed both across and with the grain of the wood until a good polish is effected. To further increase the luster, a piece of Brussels carpet placed under the weighted brush when rubbing the floor is very effective.

Another good method of finishing a floor after the use of the paste filler is to apply a heavy coat of good floor wax, and then with the aid of a weighted brush the surface may be rubbed to a velvety gloss. This is a popular and economical finish.

Again, after the use of the filler, one coat of varnish may be employed, and after allowing this to set, floor wax is applied and the surface rubbed with a weighted brush until the desired polish is obtained.

It is no more essential to scrape a floor of oak than of any other wood, although scraping certainly improves the appearance of all floors. It is rare that a floor of No. 3 or No. 4 grade is scraped before being finished, and the fourth grade is rarely scraped or finished.



Cross-sections of Flooring



$1\frac{1}{2}$ inch x $1\frac{1}{2}$ inch face



$1\frac{1}{2}$ inch x 2 inch face



$1\frac{1}{2}$ inch x $2\frac{1}{4}$ inch face

Cross-sections of Thin Flooring



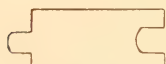
$\frac{1}{5}$ inch x $1\frac{1}{2}$ inch face



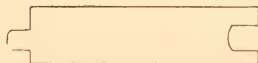
$\frac{1}{5}$ inch x 2 inch face



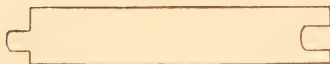
$\frac{1}{5}$ inch x $2\frac{1}{4}$ inch face



$\frac{3}{8}$ inch x $\frac{7}{8}$ inch face



$\frac{3}{8}$ inch x $1\frac{1}{2}$ inch face



$\frac{3}{8}$ inch x 2 inch face

The Use of Different Grades

DEALERS in oak flooring allege that they have the greatest call for the higher grade stock. Practical demonstrations have proved that the lower grades are equally as well adapted for many purposes as the better grades, besides effecting a deal of difference in the cost. For the drawing room of an expensive residence the clear grade of oak is recommended, and the quartered variety is, of course, the choicest. By many authorities on house finishing materials the second grade of quartered oak is even given the preference over the first. To those who are not critical judges of lumber it is very hard to distinguish in the floor which of the two qualities has been employed. As a matter of fact, in the two grades of quartered oak flooring the difference is largely technical. There is no difference in the lasting qualities and comparatively little in the figure. The second quality of quartered oak flooring can be obtained at about the same price as the first grade of plain oak.

The second or select grade is the one generally employed for ordinary residence work, because it gives a high-class floor at a reasonable cost.

The third or No. 1 common grade is used extensively in hotels, apartments, tenements and medium-priced structures. The experienced builder or carpenter can lay a floor from this stock that is just as serviceable as one from the higher grades, and the cost is about the same as that of an ordinary soft wood floor. This particular grade contains slight timber growth defects and little roughnesses of dressing in the milling that are concealed after the finishing is done.

The fourth or factory grade is particularly recommended for factories, warehouses, cheap tenements and such buildings as require a good serviceable floor without regard to high finish. This grade is intended for heavy service and will stand the use of trucks carrying merchandise.

Oak floors are especially recommended for factories where there is a desire to avoid dampness.

The Care of Oak Floors

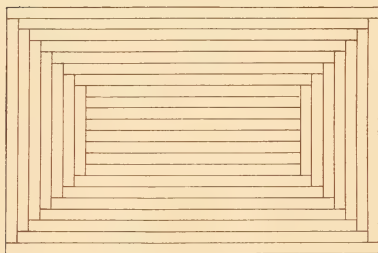
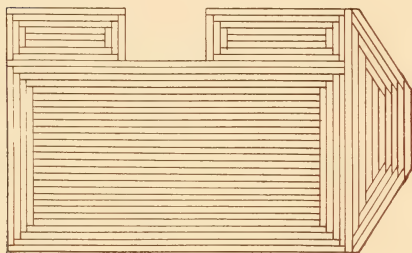
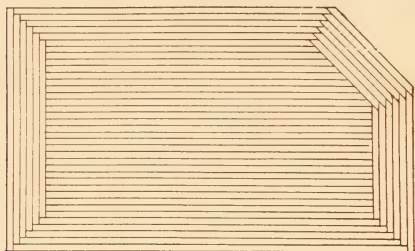


THE physical structure of all wood—and oak is no exception, although it is less susceptible to swelling and shrinking than any other variety—is such that water applied to it, no matter how well the surface is filled and covered, tends to swell the fiber which in time shrinks, leaving slight cracks between the strips of flooring. Hence water, either hot or cold, should never be applied to an unfinished or finished floor. The surface may safely be wiped with a cloth dampened in tepid water to remove the dirt and dust, but the dampness should be immediately taken up with a dry cloth.

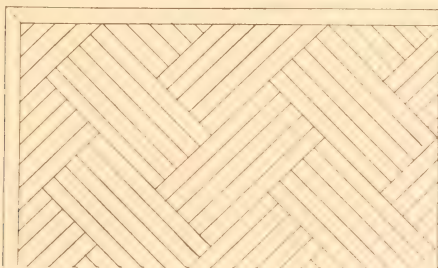
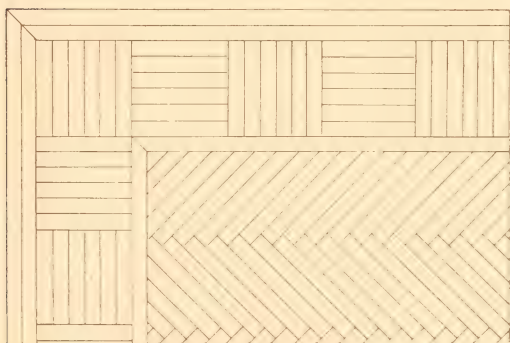
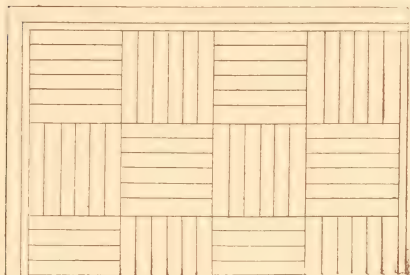
The author, in the care of his own oak flooring, has for years successfully employed equal parts of sweet oil, turpentine and vinegar well mixed and rubbed on the floor with waste, or a cotton or woollen rag. The philosophy of this treatment is that there is acid enough in the vinegar to cut the dirt and grime that works into the finish from shoes; the sweet oil produces a luster, and the turpentine promptly dries the moisture. The occasional use of a floor brush alone or with a piece of Brussels carpet placed beneath it will assist in keeping the finish of an oak floor in good condition. The above named mixture need not be applied oftener than once a month to insure a floor finish that will approximate the sheen of a piano. Should the finish become worn in spots from hard usage, a little of this mixture will renew the polish quickly. Once a year it is well to use a good floor wax, and rub it into the floor with the aid of a brush with or without the piece of carpet attached.

Other authorities recommend that the floor simply be rubbed with a heavy brush covered with Brussels carpet. Before the finish is worn down to the wood an additional coat of varnish should be applied and thoroughly rubbed.

Showing how Oak Flooring may be Laid
with Borders



Showing how Oak Flooring may be Laid in
Patterns and Herring-bone Effects



Oak Flooring Aphorisms

Don't expose oak flooring to moisture.

Transport it in dry weather; house it in well-ventilated buildings, and don't deliver it to the place of use until the structure is thoroughly dry.

In ordering flooring from your dealer, state the size of the floor space to be covered, as an allowance must be made for the tongue and groove.

Don't make the mistake of using a cheap quality of varnish in finishing a floor.

Don't put soap and water on either an unfinished or finished oak floor. You wouldn't attack your piano with a scrubbing brush, would you?

Don't smear an unfinished oak floor with linseed oil—it darkens and beclouds the grain of the wood.

Don't attempt to clean an unfinished or finished oak floor with coal oil—the tannic acid contained in oak, in combination with the oil, makes a fair quality of ink.

Be sure the joists are in alignment and the under floor perfectly level and smooth before laying an oak floor.



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