U. S. DEPARTMENT OF COMMERCE
JESSE H. JONES, Secretary
NATIONAL BUREAU OF STANDARDS
LYMAN J. BRIGGS, Director

OAK FLOORING

(SECOND EDITION)

COMMERCIAL STANDARD CS56–41

Effective Date for New Production From February 1, 1941

A RECORDED VOLUNTARY STANDARD
OF THE TRADE

UNITED STATES
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PROMULGATION

of

COMMERCIAL STANDARD CS56–41

for

OAK FLOORING

(Second Edition)

On December 12, 1935, the National Oak Flooring Manufacturers' Association requested that its grading rules be submitted to manufacturers, distributors, and users for approval as a commercial standard for white- and red-oak flooring. These grading rules were accepted by the trade and promulgated as Oak Flooring, Commercial Standard CS56–36.

A recommended revision submitted by the National Oak Flooring Manufacturers' Association and endorsed by the standing committee was circulated on September 16, 1940, to the trade for written acceptance. The trade has since accepted and approved for promulgation by the United States Department of Commerce, through the National Bureau of Standards, the revised standard as shown herein.

The standard is effective for new production from February 1, 1941.

Promulgation recommended.

I. J. Fairchild,
Chief, Division of Trade Standards.

Promulgated.

Lyman J. Briggs,
Director, National Bureau of Standards.

Promulgation approved.

Jesse H. Jones,
Secretary of Commerce.

OAK FLOORING

(Second Edition)

COMMERCIAL STANDARD CS56–41

PURPOSE

1. This standard for white-oak and red-oak flooring is a basis for common understanding between manufacturers, distributors, and users of this product. By its general acceptance, use, and certification by labels, it is hoped to increase interest in the manufacture, sale, and use of oak flooring manufactured to standard grades, to the mutual advantage of all concerned.

2. The service and satisfaction afforded by oak flooring, and, consequently, the success of the industry, depend on the use of universally recognized grades, and, therefore, the following commercial standard is provided for guidance in the manufacture, sale, and use of this product.

SCOPE

3. This standard provides minimum specifications for three grades of quarter-sawed and four grades of plain-sawed white-oak and red-oak flooring. It covers standard dimensions for length, width, and thickness of tongue-and-grooved, and square-edged strip flooring. It also covers defects, bundling, inspection, and a method of certifying compliance with the standard.

GENERAL REQUIREMENTS

4. All commercial-standard oak flooring, except square-edged strips, shall be tongued, grooved, and end-matched in accordance with the standard dimensions shown in figures 1, 2, and 3. It shall be well manufactured and shall comply with the specifications herein contained.

DETAIL REQUIREMENTS

QUARTER-SAWED GRADES

5. *Clear.*—The face shall be practically free of defects, except that ⅜ inch of bright sapwood will be permitted. The question of color shall not be considered.[1] Bundles shall be 2 feet and up in length, not to exceed 20 percent under 4 feet. Average length, 5 feet.

6. *Sap clear.*—The face shall be practically free of defects, but unlimited bright sapwood will be permitted. The question of color shall not be considered.[2] Bundles shall be 2 feet and up in length, not to exceed 20 percent under 4 feet. Average length, 5 feet.

7. *Select.*—The face may contain sapwood, and will admit pinworm holes, streaks, slight imperfections in working or a small tight knot, not to exceed one to every 3 feet in length. Bundles shall be 2 feet and up in length. Average length, 4 feet.

[1] This applies to standard grades. Flooring separated for color can be obtained as a special by adding color requirements to above specifications.

[2] See footnote 1.

PLAIN-SAWED GRADES

8. *Clear.*—The face shall be practically free of defects, except that ⅜ inch of bright sapwood will be permitted. The question of color shall not be considered.[3] Bundles shall be 2 feet and up in length, not to exceed 20 percent under 4 feet. Average length, 5 feet.

9. *Select.*—The face may contain sapwood and will admit pinworm holes, streaks, slight imperfections in working, or a small tight knot, not to exceed one to every 3 feet in length. Bundles shall be 2 feet and up in length. Average length, 4 feet.

10. *No. 1 Common.*—Shall be of such nature as to enable the laying of a sound floor without cutting. Bundles shall be 2 feet and up in length. Average length, 3 feet

11. *No. 2 Common.*—May contain defects of any character, but shall be of such nature as to enable the laying of a serviceable floor. Bundles shall be 1¼ feet and up in length. Average length, 2½ feet.

SQUARE-EDGED STRIP

12. Square-edged strip flooring is manufactured in "Clear," "Select," and "No. 1 Common" grades. The grading requirements shall be the same as those for like grades of quarter-sawed and plain-sawed flooring, except that bundling and lengths shall be as follows:

Clear.—Bundles shall be 3 feet and up in length. Average length, 6 feet.

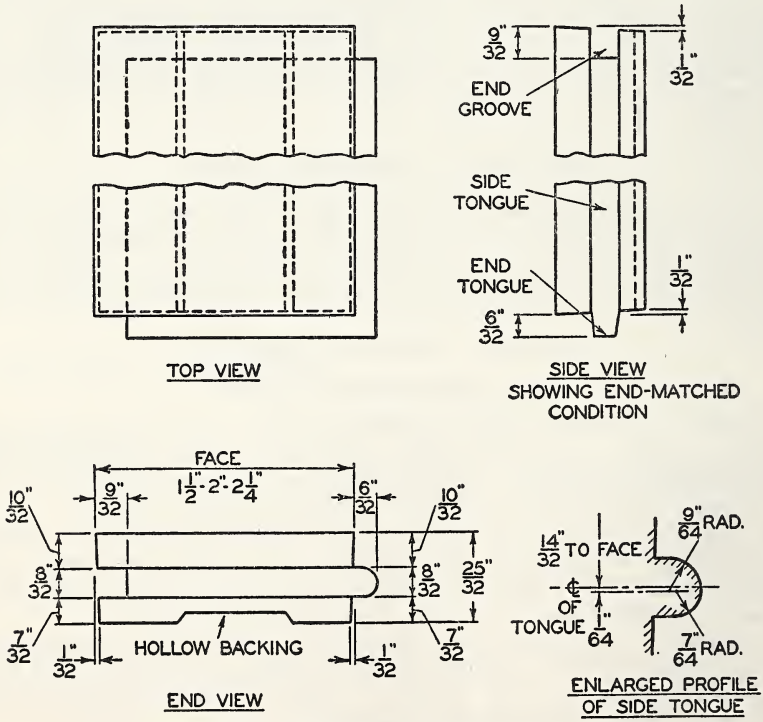

FIGURE 1.—*Dimensions for 25⁄32-inch oak flooring*

Hollow backing. 25⁄32-inch flooring with 1½-, 2-, and 2¼-inch faces shall have groove on back 3⁄32 inch deep; ⅝, ¾, and 1 inch wide, respectively; with sides beveled 1⁄16 inch.

[3] See footnote 1.

Select.—Bundles shall be 3 feet and up in length. Average length, 5 feet.

No. 1 Common.—Bundles shall be 2 feet and up in length. Average length, 4 feet.

STANDARD THICKNESSES AND WIDTHS

13. *Tongued, grooved, and end-matched.*

Thickness (inch)	Face width (inches)
25/32	1½; 2; 2¼; 3¼.
15/32	1½; 2.
11/32	1½; 2.

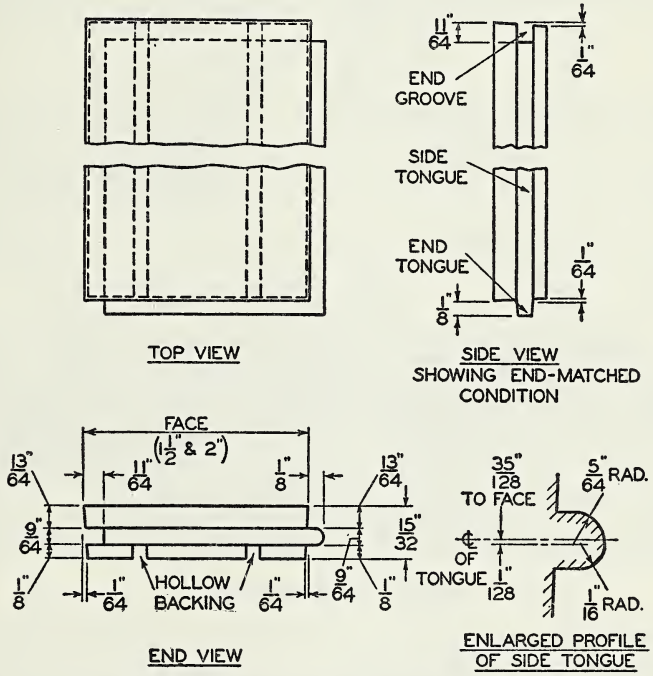

FIGURE 2.—*Dimensions for 15/32-inch oak flooring.*

Hollow backing. 15/32-inch flooring with 1½- and 2-inch faces shall have two square grooves on back, each 1/8 inch deep, 1/8 inch wide, and spaced 1 inch center to center.

14. *Square-edged.*

Thickness (inch)	Face width (inches)
5/16	⅞; 1; 1⅛; 1¼; 1⅜; 1½; 2

Also made rough back 11/32-inch thickness; 1½-inch and 2-inch face.

All faces shown above in 5/16-inch square-edged flooring are finished 1/64 inch over face.

BUNDLING

15. Oak flooring is bundled by averaging the lengths. A bundle may include pieces from 6 inches under to 6 inches over the nominal length of the bundle.

16. The percentages under 4 feet referred to in this standard apply to total footage (board feet) in any one shipment of the item.

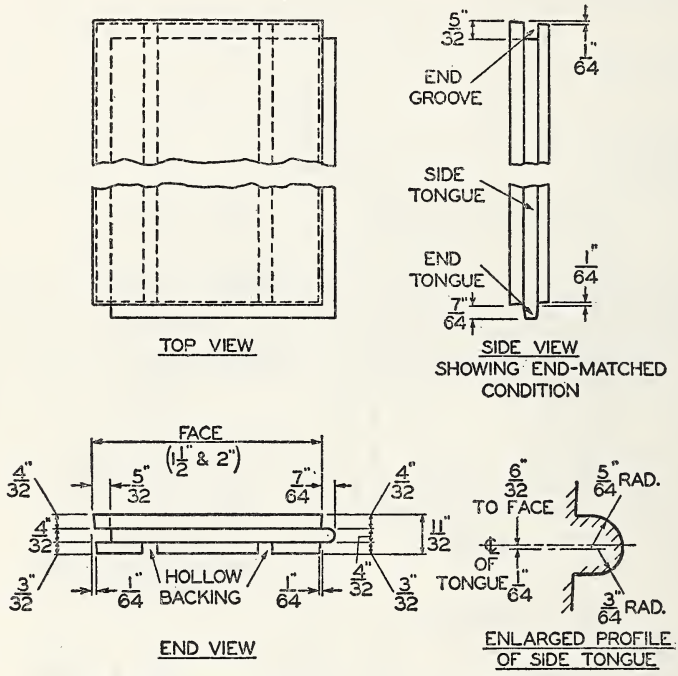

FIGURE 3.—*Dimensions for 1 1/32-inch oak flooring.*

Hollow backing. 1 1/32-inch flooring with 1½- and 2-inch faces shall have two square grooves on back, each 3/32 inch deep, 3/32 inch wide, and spaced 1 9/32 inch center to center.

MEASUREMENT

17. *Thickness.*—In computing the footage of standard oak flooring, a thickness of 1 inch shall be used.

18. *Width.*—Tongue-and-grooved flooring 25/32 inch thick is counted as ¾ inch wider than the actual face width, whereas flooring 15/32 inch and 1 1/32 inch thick is counted as ½ inch wider than the actual face width. Square-edged strip flooring shall be measured as of the actual face width.

19. *Length.*—The length of end-matched flooring is counted as ¾ inch longer than the actual length.

INSPECTION

20. Utmost care is exercised in the manufacture and inspection of oak flooring, and although the most capable grading experts are employed to assure constant uniformity of standard grades, it must be remembered that they are dealing with a product of nature in which

there will occasionally appear marginal pieces on which the judgment of two equally competent inspectors might differ.

21. The purchaser may refuse any shipment in which the total footage of subgrade pieces is in excess of 5 percent of the grade in question, as determined by official reinspection.

REINSPECTION

22. If the reinspection results in a difference in favor of the purchaser of more than 5 percent in feet (board measure), as shown on the invoice, then the shipper shall pay all the expenses of reinspection. If, on the other hand, the difference is only 5 percent or less in feet (board measure), the purchaser shall pay all the expenses of reinspection.

23. The quality and condition of oak flooring as it leaves the manufacturer is held to govern the reinspection.

CERTIFICATION

24. In order to assure the purchaser that he is getting oak flooring of the grade specified, producers may individually, or in concert with their trade association or inspection bureau, issue a certificate of grade with each shipment, or grade and trade-mark each piece or bundle as conforming to this established standard. The National Oak Flooring Manufacturers' Association has adopted the label shown below, by which the manufacturer and the association, individually and jointly, certify full compliance with this standard.

MANUFACTURERS' RECOMMENDATIONS

25. The following information is not part of the commercial standard for oak flooring, but represents the custom of the trade and the manufacturers' recommendations, based on long experience, for maximum service from the use of oak flooring.

TABLE 1.—*Standard counts and weights of oak flooring*

Actual size (inches)	Counted size (inches)	Weight M ft (pounds)
25/32 by 3¼	1 by 4	2,250
25/32 by 2¼	1 by 3	2,000
25/32 by 2	1 by 2¾	2,000
25/32 by 1½	1 by 2¼	2,000
15/32 by 2	1 by 2½	1,300
15/32 by 1½	1 by 2	1,300
11/32 by 2	1 by 2½	1,000
11/32 by 1½	1 by 2	1,000
5/16 by 2	Face count	1,200
5/16 by 1½	do	1,200

DETERMINATION OF QUANTITY REQUIRED

26. Ascertain the square footage of the area to be covered, and add thereto the following percentages:

50 percent for	$^{25}/_{32}$ by 1½ in.
37½ percent for	$^{25}/_{32}$ by 2 in.
33⅓ percent for	$^{25}/_{32}$ by 2¼ in.
33⅓ percent for	$^{15}/_{32}$ by 1½ in.
25 percent for	$^{15}/_{32}$ by 2 in.
33⅓ percent for	$^{11}/_{32}$ by 1½ in.
25 percent for	$^{11}/_{32}$ by 2 in.

The above figures are based on laying flooring straight across the room. Where there are bay windows or other projections, allowance should be made for additional flooring. It is always well to order 5 percent additional flooring to take care of floor layers' cutting and possible damage if carelessly handled.

TABLE 2.—*Method of determining board-foot contents of a bundle of oak flooring*

Number of pieces per bundle	Size (inches)	Multiply the length of bundle by—
12	$^{25}/_{32}$ by 1½	2¼
12	$^{25}/_{32}$ by 2	2¾
12	$^{25}/_{32}$ by 2¼	3
12	$^{25}/_{32}$ by 3¼	4
18	$^{15}/_{32}$ by 1½	3
18	$^{15}/_{32}$ by 2	3¾
24	$^{11}/_{32}$ by 1½	4
24	$^{11}/_{32}$ by 2	5
30	$^{5}/_{16}$ by 1½	3¾
30	$^{5}/_{16}$ by 2	5

ESSENTIALS OF GOOD OAK-FLOOR CONSTRUCTION

27. It is vitally important that the following precautions be taken preliminary to the laying of oak flooring, to insure beautiful, enduring hardwood floors.

28. Defer delivery of the oak flooring until all plastering, cement, masonry work, painting, wallpapering, and interior finishing are completed and all are thoroughly dry. Under no circumstances should the laying begin until such work is completed and the interior atmosphere is dry.

TEMPORARY HEAT

29. In winter weather, the building should have heat turned on before flooring is laid, to remove dampness existing in the cold atmosphere. In summer months, in certain parts of the country where there is excessive moisture, buildings of importance usually have some heat turned on before, during, and after the laying of the oak flooring, in order to remove excess moisture from the interior atmosphere. In such conditions it is best to have the bundles delivered inside the building about a week before starting to lay the flooring.

FLOOR JOISTS

30. Floor joists should be of thoroughly air- or kiln-dried lumber and spaced not more than 16 inches, center to center, for subfloor construction.

OAK FLOORING LAID ON OPEN JOISTS

31. When there is no subfloor, the oak flooring of $^{25}/_{32}$-inch thickness is to be laid directly on the floor joists, spaced 12 inches, center to center. Joists should be cross-bridged for added rigidity.

SUBFLOOR CONSTRUCTION

UNDER FLOORS

32. A subfloor is the foundation of the finished floor.

33. In new buildings, it is presumed there will be an "under-floor," or "subfloor," laid over the joists. A subfloor must be provided in all cases where the oak flooring is of less than $^{25}/_{32}$-inch thickness. It is a permanent advantage to have oak floors laid over a subfloor.

34. Subflooring should be 1- by 4-inch or 1- by 6-inch stock, sized, No. 1 Common or No. 2 Common grade, of good, new, kiln-dried lumber, laid diagonally (at 45°) to the joists. The boards should be driven close, but not tight.

35. The subfloor boards should be square-edged, and not tongued and grooved or shiplap, not wider than 6 inches, and should be clean and straight. Avoid boards that have been used as forms for concrete work.

NAILING THE SUBFLOORS

36. Boards must be nailed down solid at every bearing with two 10-penny nails. All butt joints must rest on bearings. If it is absolutely necessary to use subfloor boards wider than 6 inches, extra nailing must be employed.

37. One of the secrets of obtaining a solid, nonsqueaking, almost "one-piece" oak floor, is to use plenty of nails in both the subfloor and the top floor. See nail schedule, table 3, page 9.

EXAMINE SUBFLOOR CAREFULLY

38. Examine the subfloor carefully. Remove all dirt and plaster lumps, drive down any raised nails, replace broken boards, and make sure the floor is level and solid. Then sweep clean. Use no water.

BUILDING PAPER AND INSULATION

39. Lay a good quality building paper over the clean subfloor. Use building paper of a type known as "15-lb asphalt-saturated roll felt." Do not use thin, black-sized or red rosin-sized paper, or "slaters" felt.

INSULATING OVER HEATING PLANT

40. For rooms directly over heating plants, use double-weight building paper (30-lb asphalt felt) or 30-lb asbestos paper, or standard insulating board about ½-inch thick. If preferred, the insulation can

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be applied (in new or old buildings) on the basement ceiling, set in between the floor joists.

SLEEPERS, OR SCREEDS

41. If the under or subfloor is to be omitted and the oak flooring is to be nailed directly to wood "sleepers," or "screeds," set in or on the concrete slab, the sleepers should be spaced not more than 12 inches, center to center.

42. When a subfloor is to be installed over a concrete slab, the sleepers may then be spaced on 16- or 18-inch centers. Sleepers should be tightened in place. There are various approved devices, such as galvanized metal clips, expansion bolts in lead sleeves, and wire. Fastening and tightening by twisting strong wire around sleepers has proved a simple and effective method.

PRESERVED LUMBER FOR SLEEPERS

43. Sleepers should be of pretreated lumber, impregnated with an approved wood preservative. They should be of a lumber grade equivalent to No. 1 Common, 2 by 4 inches or 2 by 3 inches, and laid with the flat side down.

FLOOR FURRING

44. When electrical conduits and piping are to be laid on top of the wood subfloor, floor furring strips of the required thickness and 1¾ inches wide, are spaced on 10-inch centers and tacked to the subfloor. They are laid at right angles to direction of the finished flooring. The latter is nailed through the furring strips, using nails one size larger than those specified in the nail schedule, table 3, page 9.

FLOOR VENTILATION VERY IMPORTANT

45. Where basements are not provided, adequate provision must be made for the free movement of cross currents of air beneath the building. This circulation may be obtained by providing vents and other openings in the foundation walls.

46. The total area of vent openings should be at least 1½ percent of the first-floor area, and more if possible.

47. Stagnated and humid air under a building will encourage stain and decay. The preventive is air circulation. When conditions do not permit adequate ventilation, the oak flooring should never be less than standard $^{25}/_{32}$-inch thickness. Architectural designs requiring "low-slung" floors may be modified slightly to permit the introduction of sufficient ventilating openings.

NAILS AND NAILING

48. Proper nails and correct nailing hold the flooring in place, make the floor rigid, and prevent squeaks. The nails should be started through the strip where the tongue leaves the shoulder, and driven inwardly at an angle of 45° to 50° to the floor. (See fig. 4.)

Countersink all nails with a steel set or use a nail for setting. Do not attempt to do this with a hatchet or hammer, as this may cause bruises and scars that cannot be removed by scraping and sanding.

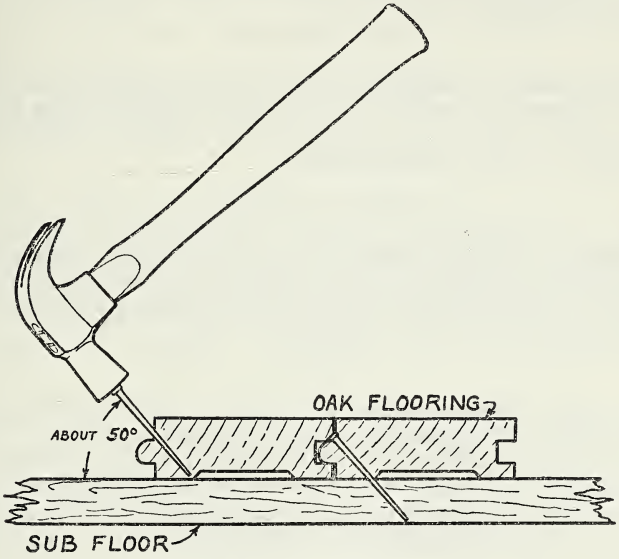

FIGURE 4.—*Method of nailing.*

TABLE 3.—*Nail schedule*

All tongue-and-grooved oak flooring must be blind-nailed.
All oak flooring ½ inch or less in thickness must be laid on a subfloor.
All square-edged flooring must be face-nailed (through the top face) instead of blind-nailed.

Flooring dimension (inches)	Nails	
	Size	Spacing
25/32 by 2, 2½, and 3¼ (tongued and grooved).	8-d light flooring nail—use wire or steel-cut casing nail (cut nail is preferable).	10 inches apart.
25/32 by 1½ (tongued and grooved)	Same as above	12 inches apart.
15/32 by 1½, and 2 (tongued and grooved).	6-d bright wire casing nails	10 inches apart.
11/32 by 1½, and 2 (tongued and grooved).	4-d bright wire casing nails	8 inches apart.
5/16 by 1½, and 2 (square-edged)	1⅛ inched barbed-wire flooring brad, No. 16; heads countersunk and puttied.	2 nails every 7 inches.

HOW TO LAY OAK FLOORING

49. The following instructions are intended for the laying of oak floors in new construction and over wood subfloors. However, they also apply generally to the laying of oak flooring over old floors.

WHERE TO BEGIN

50. Leave an expansion space of not less than ½ inch on all sides next to the walls, but not wider than will be covered by the base-shoe, quarter-round, or door thresholds, or saddles.

51. The flooring strips are to be started square with the room, against either sidewall. These first strips are to be face-nailed along the edges next to the wall where the base-shoe will conceal the nailing. All other flooring strips are blind-nailed on the tongued edge, except square-edged flooring.

DRAWING UP

52. After laying and nailing three or four strips of oak flooring, place a short piece of straight-edged harwood against the tongue of the outside strip of flooring, and drive it up snugly. This drives the flooring strips into their final position.

FLUSH FLOOR

53. Whenever possible, carry the laying through doorways continuously from one room into another, so that all rooms will have a flush floor. Avoid laying a ripped strip at doors or where it may mar appearances.

JOINTS

54. All pieces of flooring strips are tongue and grooved on the sides and on the ends. This is called "side and end matching." The fit of all pieces is practically perfect when laid side to side and end to end. The end jointing, therefore, may come anywhere in the floor, without regard to a joist or a sleeper bearing at the joint; but joints should be placed so as to avoid having two or three ends in line or clustered together.

RANDOM LAYING

55. Oak flooring of the $^{25}/_{32}$-inch thickness is made in widths 1½ inches and 2¼ inches, and also 3¼ inches when ordered. Specify the width desired, or call for all three widths—about an equal quantity of each—to be laid at random. This makes a very interesting floor with a mellowed effect, and is suited to all but the most formal styles of design.

LAYING NEW OAK FLOORS OVER OLD FLOORS

56. The old floors serve as subfloors. Replace boards that cannot be planed or nailed down level, drive down all loose nails, nail the boards securely, and make sure the old floor is level and free of humps. Remove the base shoe, or molding strip, at the bottom of the base (baseboard). Sweep clean, and lay saturated felt. Then proceed with the laying of the new floor. Lay the new oak flooring at right angles to the old floor.

SURFACING "SCRAPING OR SANDING"

57. Oak flooring is delivered to the job with a wearing surface that is beautifully smooth and as perfect as modern machinery can make it.

58. When ready for surfacing, the floor should be swept clean. Floors should be traversed several times, working on the first traverse across the grain and then lengthwise with the grain, starting with No. 2 sandpaper on the machine and graduating to No. 1/2 sandpaper on

the second traverse, and with No. 0 or No. 00 sandpaper on the third and fourth traverses. For very fine floors, four or five traverses are essential. The floor should then receive a final buffing or cleaning with fine sandpaper (use fine sandpaper No. 1/2 that has been used on the machine sander) or No. 0 steel wool—by machine or by hand. Do not use steel wool, however, just before or after a paste filler is applied.

59. After sanding the floor, sweep perfectly clean and permit no one to walk on it until the floor stain, filler, or first coat of finish has been applied and is dry.

FINISHING

60. The finish of oak floors is of vital importance in developing complete floor satisfaction. Modern floor finishes by many well-known producers are available. They offer color and service to complete the harmony of any color scheme desired. Reference may be made to well-qualified floor finishers or to the makers of the outstanding brands for complete information in keeping with individual tastes.

EFFECTIVE DATE

The standard is effective for new production from February 1, 1941.

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Each organization nominated its own representative. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Division of Trade Standards, National Bureau of Standards, which acts as secretary for the committee.

Manufacturers:

B. A. Mayhew (chairman), Fordyce Lumber Co., Fordyce, Ark.
W. J. Wright, M. B. Farrin Lumber Co., Winton Place Station, Cincinnati, Ohio.
J. H. Lane, Long-Bell Lumber Co., 926 Grand Ave., Kansas City, Mo.

Distributors:

Fred R. Stair, Farragut Lumber Co., Inc., 1350 No. Sixth Ave., Knoxville, Tenn. Representing National Retail Lumber Dealers Association.
Fred A. Holbrook, Holbrook Lumber Co., Springfield, Mass. Representing National-American Wholesale Lumber Association.
Northeastern Retail Lumbermen's Association. Invited to name representative.

Users:

Theodore I. Coe, The Dept. of Technical Services, American Institute of Architects, 1741 New York Ave., NW., Washington, D. C.
Earl W. Macy, Technical Division, Federal Housing Administration, Washington, D. C.
National Association of Building Owners and Managers. Invited to name representative.

HISTORY OF PROJECT

On December 12, 1935, the National Oak Flooring Manufacturers' Association requested the cooperation of the Division of Trade Standards in bringing together all interested parties for the development and establishment of a commercial standard for oak flooring. Since members of the Association represented a large percentage of the production volume of oak flooring, the preliminary draft of the standard was based upon requirements contained in its grading rules. The proposed standard was circulated to the trade for acceptance on December 14, 1935.

Upon receipt of official acceptances estimated to represent a satisfactory majority of the production volume, and in the absence of active valid opposition, a circular letter, dated February 14, 1936, announced that Commercial Standard CS56–36 was effective for new production from March 15, 1936.

FIRST REVISION

In 1940 the supply of printed copies of this standard became exhausted and a revision of the standard was undertaken to bring it up to date with present commercial practice. The major improvement is listing the flooring by actual thicknesses instead of nominal thicknesses. Upon approval by the standing committee, this revision was circulated on September 16, 1940, for acceptance. Following receipt of a large number of acceptances from manufacturers, distributors, architects, and users, estimated to represent a satisfactory majority, this revision was announced on January 2, 1941, becoming effective on February 1, 1941 as CS56–41.

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this commercial standard.

Date _____

Division of Trade Standards,
National Bureau of Standards,
Washington, D. C.

Gentlemen:

Having considered the statements on the reverse side of this sheet, we accept the Commercial Standard CS56–41 as our standard of practice in the

Production [1] Distribution [1] Use [1]

of oak flooring.

We will assist in securing its general recognition and use and will cooperate with the standing committee to effect revisions of the standard when necessary.

Cut on this line

Signature of individual officer _____
(in ink)

(Kindly typewrite or print the following lines)

Name and title of above officer _____

Organization _____
(Fill in exactly as it should be listed)

Street address _____

City and State _____

[1] Please designate which group you represent by drawing lines through the other two. Please file separate acceptances for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon became established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices and the like.

2. *The acceptor's responsibility.*—The purpose of commercial standards is to establish for specific commodities, nationally recognized grades or consumer criteria and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the commercial standard where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of commercial standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations and individuals listed below have accepted this specification as their standard of practice in the production, distribution, and use of oak flooring. Such endorsement does not signify that they may not find it necessary to deviate from the standard, nor that producers so listed guarantee all of their products in this field to conform with the requirements of this standard. Therefore specific evidence of conformity should be obtained where required.

ASSOCIATIONS

American Home Economics Association, Washington, D. C. (In principle.)
American Institute of Architects, Kansas Chapter, Manhattan, Kans.
American Specification Institute, Chicago, Ill.
Appalachian Hardwood Manufacturers, Inc., Cincinnati, Ohio.
Architects League of Northern New Jersey, The, Cliffside Park, N. J.
Arizona Retail Lumber & Builders Supply Association, Inc., Phoenix, Ariz.
Associated General Contractors of America, Inc., Washington, D. C.
Building Officials Conference of America, Inc., Washington, D. C.
Carolina Lumber & Building Supply Association, Charlotte, N. C. (In principle.)
Hardwood Dimension Manufacturers Association, Inc., Louisville, Ky. (In principle.)
Lumber Exchange of Baltimore, Baltimore, Md.
Lumbermen's Exchange of the City of Philadelphia, The, Philadelphia, Pa.
Massachusetts Retail Lumber Dealers Association, Newburyport, Mass.
Mountain States Lumber Dealers Association, Denver, Colo. (In principle.)
National-American Wholesale Lumber Association, Inc., New York, N. Y.
National Hardwood Lumber Association, Chicago, Ill. (In principle.)
National Lumber Exporters Association, Memphis, Tenn.
National Oak Flooring Manufacturers' Association, Memphis, Tenn.
National Wood Flooring Contractors Association, Inc., New York, N. Y.
North West Woodwork Association, St. Paul, Minn. (In principle.)
Ohio Association of Retail Lumber Dealers, The, Xenia, Ohio.
Pittsburgh Wholesale Lumber Dealers Association, Pittsburgh, Pa.
Southern Hardwood Producers, Inc., Memphis, Tenn. (In principle.)
Southern Hardwood Traffic Association, Memphis, Tenn. (In principle.)
Structural Service Bureau, Philadelphia, Pa.
United Roofing Contractors Association, Chicago, Ill. (In principle.)
Wisconsin Retail Lumbermens Association, Milwaukee, Wis.

FIRMS

Adams, Franklin O., Tampa, Fla.
Adams Lumber Co., Inc., The George, Inwood, Long Island, N. Y.
Addison-Rudesal Co., Atlanta, Ga.
Allen, Harris C., San Francisco, Calif.
Allison & Allison, Los Angeles, Calif.
Altfillisch, Charles, Decorah, Iowa.
Andrews, Jones, Biscoe & Whitmore, Boston, Mass.
Arkansas Oak Flooring Co., Pine Bluff, Ark.
Arkansas Valley Lumber Co., Wichita, Kans.
Armstrong-Walker Lumber Co., Terre Haute, Ind.
Ayres, Atlee B. & Robert M., San Antonio, Tex.
Balch & Lippert, Madison, Wis.
Baldridge Lumber Co., J. C., Albuquerque, N. Mex.
Baltimore, Bureau of Plans & Surveys of, Division of Architecture, Baltimore, Md.
Barker Lumber & Fuel Co., Portage, Wis.
Barnes Lumber Co., W. F. & J. F., Waco, Tex.
Barnes Lumber Corporation, Charlottesville, Va.
Barr Lumber Co., Santa Ana, Calif.
Bassett Hardwood Manufacturing Co., Monticello, Ky.

Baumer, Herbert, Columbus, Ohio.
Baxter & Co., C. B., Kansas City, Mo.
Beacham & LeGrand, Greenville, S. C.
Beardsley, Wallace P., Auburn, N. Y.
Beeson, Carroll O., Crawfordsville, Ind.
Berkshire Lumber Co., Pittsfield, Mass.
Bial, George F., Hasbrouck Heights, N. J.
Bickford, Robert Turner, Elmira, N. Y.
Bishop, Horatio W., Los Angeles, Calif.
Blackburn, Inc., Robert, Milwaukee, Wis.
Blake, Edgar Ovet, Evanston, Ill.
Blithe, Wesley Lesher, Philadelphia, Pa.
Boehm, George A., New York, N. Y.
Bogner, Harry, Milwaukee, Wis.
Bond-Woolf & Co., Alcoa, Tenn.
Botsford Lumber Co., Winona, Minn.
Boydton Manufacturing Co., Inc., Boydton, Va.
Bradley Lumber Co. of Arkansas, Warren, Ark.
Brainerd, Harry B., New York, N. Y. (In principle.)
Brazer, Clarence W., New York, N. Y.
Bridge Beach & Co., San Francisco, Calif.
Briggs Co., L. W., Worcester, Mass.
Bristol Door & Lumber Co., Bristol, Tenn.
Brown, Floyd W., Minneapolis, Minn.
Bruce Co., E. L., Memphis, Tenn.
Brust & Brust, Milwaukee, Wis.
Buchanon & Smock Lumber Co., Asbury Park, N. J.
Buechner & Orth, St. Paul, Minn. (In principle.)
Burritt Lumber Sales Co., Inc., The, Bridgeport, Conn.
Burrow Lumber Co., Canyon, Tex.
Cahill Lumber Co., R. E., San Antonio, Tex.
California Golden Oak Lumber Co., The, Eureka, Calif.
Cameron & Co., Inc., Wm., Waco, Tex.
Camlet, J. Thomas, Clifton, N. J.
Candela, Rosario, New York, N. Y.
Cannon & Mullen, Salt Lake City, Utah.
Central City Lumber & Manufacturing Co., Central City, Ky.
Central Oak Products Co., Nashville, Tenn.
Central Warehouse Lumber Co., Minneapolis, Minn.
Cervin & Stuhr, Rock Island, Ill.
Chapin, Rollin C., Minneapolis, Minn.
Chapin Lumber Co., The, Aurora, Colo.
Chapman & Dewey Lumber Co., Memphis, Tenn.
Cherokee Flooring Corporation, Burlington, N. C.
Chiaverini, Francis, Providence, R. I. (In principle.)
Chickamauga Cedar Co., Stevenson, Ala.
Child, Harry Charles, Sayre, Pa.
Childs & Smith, Chicago, Ill.
Cincinnati Floor Co., Inc., Cincinnati, Ohio.
Coates-Hoppe Lumber Co., N. Platte, Nebr.
Coit, E., New York, N. Y.
Collins & Son, T. J., Staunton, Va.
Colonial Hardwood Flooring Co., Hagerstown, Md.
Colorado State College of Agriculture & Mechanic Arts, Fort Collins, Colo. (In principle.)
Conrad & Cummings, Binghamton, N. Y.
Conwell & Co., E. L., Philadelphia, Pa. (In principle.)
Cook Co., A. B., Malvern, Ark.
Coolidge, Shepley, Bulfinch & Abbott, Boston, Mass.
Cooper, David M., Ambridge, Pa.
Corlett, Will G., Oakland, Calif.
Cottonwood Lumber Co., Cottonwood, Ariz.
Cram & Ferguson, Boston, Mass.
Crossett Lumber Co., Crossett, Ark.
Crowell & Lancaster, Bangor, Maine.
Cunningham, Lamb & Prince, Inc., Charlestown, Mass.
Dallas, Better Business Bureau of, Dallas, Tex. (In principle.)
Dearstine Lumber Co., J. C., Schenectady, N. Y.
DeJarnette, Charles Wagner, Des Moines, Iowa.
Derr-Gibbons Supply Co., Philadelphia, Pa.
Diamond Match Co., (California Lumber & Timber Operations) The, Chico, Calif.
Dickerson Lumber Co., Huntington, W. Va.
Dierks Lumber & Coal Co., Kansas City, Mo.
Dietel, George J., Buffalo, N. Y.
District of Columbia, Washington, D. C.
Dix Lumber Co., Cambridge, Mass.
Doak Lumber Co., Greenville, Tenn.
Dodds Lumber Co., Omaha, Nebr.
Dodge Corporation, F. W., Chicago, Ill.
Dodge & Morrison, New York, N. Y.
Donovan, John J., Berkeley, Calif.
Dower Lumber Co., John, Tacoma, Wash.
Eckles Co., W. G., New Castle, Pa.
Emery Industries, Inc., Cincinnati, Ohio.
English, Harold T., Hutchinson, Kans.
Everett & Associates, H. F., Allentown, Pa.
Ewing Lumber Co., Effingham, Ill.
Exchange Lumber Co., Inc., Rochester, N. Y.
Exchange Lumber & Manufacturing Co., Spokane, Wash.
Farmers Lumber Co., La Grange, Tex.
Faragut Lumber Co., Knoxville, Tenn.
Farrin Lumber Co., M. B., Cincinnati, Ohio.
Farris Hardwood Lumber Co., Nashville, Tenn.

Fitzpatrick Lumber Co., The J. J., Madison, Wis.
Flannagan, Eric G., Henderson, N. C.
Florence Builders Supply Co., Florence, S. C.
Foltz & Son, Herbert, Indianapolis, Ind. (In principle.)
Ford Lumber Co., J. B., Harrisburg, Ill.
Fordyce Lumber Co., Fordyce, Ark.
Fort Wayne Builders Supply Co., Ft. Wayne, Ind.
Frost Lumber Industries, Inc., Shreveport, La.
Gaertner, Otto, New York, N. Y.
Ganteaume & McMullen, Boston, Mass.
General Millwork Corporation, Utica, N. Y.
Gibb, Office of Arthur N., Ithaca, N. Y.
Gibbs Lumber Co., Anaheim, Calif.
Gittings Lumber Co., The, Denver, Colo.
Glore Lumber Co., C. A., Centralia, Ill.
Goedde & Co., B., E. St. Louis, Ill.
Greenstein, Louis, Buffalo, N. Y.
Griffith Stave Co., Geo. C., Springfield, Mo.
Grobstein Construction Co., Lakewood, N. J.
Guernsey Westbrook Co., The, Hartford, Conn.
Hagemeyer Lumber Co., Cincinnati, Ohio.
Hager & Coor Lumber Co., Lansing, Mich.
Hahn, Stanley W., Silver Spring, Md.
Hallack & Howard Lumber Co., The, Denver, Colo.
Hallberg & Beersman, Chicago, Ill.
Hamilton Lumber Co., The, Hamilton, Ohio.
Hammond Lumber Co., Los Angeles, Calif.
Hannaford, Frederick T., Gainesville, Fla.
Hannaford & Sons, Samuel, Cincinnati, Ohio.
Haralson & Mott, Ft. Smith, Ark.
Harbaugh Lumber Co., Charles, Twin Lakes, Wis.
Harper & West, Boston, Mass.
Harris Flooring Co., Long Island City, N. Y.
Harris Hardwood Co., Inc., Roanoke, Va.
Harris Manufacturing Co., Johnson City, Tenn.
Hartwick Westcott Lumber Co., Ypsilanti, Mich.
Hartwick-Woodfield Co., Jackson, Mich.
Hasbrouck Co., Inc., John, New York, N. Y.
Hasness, C. D., Harrisburg, Pa.
Hausman, N. W., Glen Cove, N. Y.
Hawkeye Lumber & Coal Co., The, Cedar Rapids, Iowa.
Hawkeye Lumber Co., Oskaloosa, Iowa.
Heidritter Lumber Corporation, Elizabeth, N. J.
Helfensteller, Hirsch & Watson, St. Louis, Mo.
Hentz, Adler & Shutze, Atlanta, Ga.
Hettler Lumber Co., Herman H., Chicago, Ill.
Heyer Sons, W. H., Sumner, Iowa.
Hickson-Rogers Manufacturing Co., Paragould, Ark.
Hinckley & Son Co., John, Yarmouthport and Hyannis, Mass.
Hodgdon & Son, Charles, Chicago, Ill.
Hoener, P. John, St. Louis, Mo.
Hoffman Lumber Co., Pittsburgh, Pa.
Holcomb Yard, Sycamore, Ill.
Holsman & Holsman, Chicago, Ill.
Home Lumber & Coal Co., Dixon, Ill.
Hope, Frank L., Jr., San Diego, Calif.
Hopkins, Albert Hart, Buffalo, N. Y.
Houston, Better Business Bureau of, Houston, Tex. (In principle.)
Huber-Lanctot Housewrecking Corporation, Buffalo, N. Y.
Hudson, Flynn E., Jr., Auburn, Ala.
Hunting Lumber Co., R. D., Cedar Rapids, Iowa.
Hutchings, E. T., Louisville, Ky.
Hutton & Bourbonnais Co., Hickory, N. C.
Independent Lumber Co., The, Grand Junction, Colo.
Inlaid-Floor Co., San Francisco, Calif.
Iowa Builders Supply Co., Cedar Rapids, Iowa.
James Lumber Co., Boston, Mass.
Joannes, Francis Y., New York, N. Y.
Johnson, Keplar B., Seattle, Wash.
Johnson, Wallwork & Dukehart, Portland, Oreg.
Johnstone, Harry Inge., Mobile, Ala.
Jokel-Coy-Thal, Toledo, Ohio.
Jones Lumber Co., Alf, Kansas City, Mo.
Jones & Marsh, Portland, Oreg.
Kaelber, Wm. G., & L. A. Waasdorp, Rochester, N. Y.
Kansas State College, Department of Architecture, Manhattan, Kans.
Kelley, Frederic P., New York, N. Y.
Kellogg Lumber Co., Monroe, La.
Kentucky Flooring Co. of Virginia, Inc., Orange, Va.
King Lumber Co., The, Bakersfield, Calif.
Klueppelberg, A. E., New York, N. Y.
Knighton & Howell, Portland, Oreg.
Kohn, Robert D., Chas. Butler, New York, N. Y.
Kruckemeyer & Strong, Cincinnati, Ohio.
Kyle, Herbert S., Charleston, W. Va. (In principle.)
Lander Lumber Co., El Paso, Tex.
Larrick, Thomas, Athens, Ohio.
Law, Law & Potter, Madison, Wis.
Lawrence, Holford & Allyn, Portland, Oreg.
Leachman Lumber Co., Des Moines, Iowa.

Leathers Manufacturing Co., Inc., A. H., Dickson, Tenn.
Lester Lumber Co., Inc., Martinsville, Va.
Levy, Will, St. Louis, Mo.
Lightsey Brothers, Miley, S. C.
Litle, W. A., Washington, Pa.
Long-Bell Lumber Co., The, Kansas City, Mo.
Lord & Bushnell Co., The, Chicago, Ill.
Louisiana Central Oak Flooring Corporation, Monroe, La.
Lovatt, George I., Philadelphia, Pa.
Lovell-Denniston Lumber Co., Eldora, Iowa.
Lubkowski Bros. Floor Co., Buffalo, N. Y.
Lumber & Millwork Co. of Philadelphia, Pa., The, Philadelphia, Pa.
Lumbermen's Service Bureau, San Diego, Calif.
Lyman-Hawkins Lumber Co., The, Akron, Ohio.
Lynch Davidson & Co., Luling, Tex.
Lynch & Foard, Wilmington, N. C.
Magee-Fine Lumber Co., Philadelphia, Pa.
Maisler Bros. Lumber Co., Fresno, Calif.
Mann & Co., Hutchinson, Kans.
Manufacturers Reserve Supply, Inc., Irvington, N. J.
Markland Contracting Co., M. B., Atlantic City, N. J.
Marshall Wright Lumber Co., Inc., Ionia, Mich.
Martin, Edgar, Chicago, Ill.
Martin & Son, A. Oscar, Doylestown, Pa.
Mason & Co., George D., Detroit, Mich.
Massachusetts, State of, Department of Labor & Industries, Division of Standards, Boston, Mass.
Massena & duPont, Wilmington, Del.
Matthews Hardwoods, Inc., Seattle, Wash.
Mauk Lumber Co., The C. A., Toledo, Ohio.
Mauran, Russell, Crowell & Mullgardt, St. Louis, Mo.
Maysville Lumber Co., Inc., Maysville, Ky.
McFarland Lumber Co. of Philadelphia, Philadelphia, Pa.
McMahan & Co., M. B., Sevierville, Tenn.
McMinnville Manufacturing Co., McMinnville, Tenn.
Meadow River Lumber Co., The, Rainelle, W. Va.
Memphis Hardwood Flooring Co., Memphis, Tenn.
Mentor Lumber & Supply Co., The, Mentor, Ohio.
Meriden Lumber Co., The, Meriden, Conn.
Merit Oak Flooring Co., Birmingham, Ala.
Michigan Stained Shingle Co., Inc., Grand Rapids, Mich.
Midwest Lumber Co., Dubuque, Iowa.
Mid-West Lumber Co., The, Mankato, Kans.
Millard, Julian, Harrisburg, Pa. (In principle.)
Mills, Rhines, Bellman & Nordhoff, Inc., Toledo, Ohio.
Missouri Floor Co., Inc., St. Louis, Mo.
Moore Lumber Co., L. A., Mason City, Iowa.
Moore & Williams, Jacksonville, Fla.
Mooser, William, San Francisco, Calif.
Morrison-Merrill & Co., Salt Lake City, Utah.
Mowry & Co., Inc., Geo., Derry, Pa.
Mueller, F. G., & W. R. Hair, Hamilton, Ohio.
Muhlenberg Bros., Reading, Pa.
Mundie, Jensen, Bourke & Havens, Chicago, Ill.
Nashville Hardwood Flooring Co., Nashville, Tenn.
Natwick & Co., J., Baltimore, Md.
Nelson, Albert L., St. Louis, Mo.
New Orleans, Inc., Better Business Bureau of, New Orleans, La. (In principle.)
New Rochelle Coal & Lumber Co., New Rochelle, N. Y.
Newbegin Lumber Co., James G., Tacoma, Wash.
Newburgh Lumber Co., The, Newburgh, N. Y.
Newton Lumber & Manufacturing Co., The, Colorado Springs, Colo.
North Branch Flooring Co., Chicago, Ill.
Norton & Son, F. S., Algona, Iowa.
Officer, Gwynn, Berkeley, Calif.
Ohio State University, The, Columbus, Ohio.
Oklahoma, University of, School of Architecture, Norman, Okla.
Owen Co., R. C., Hopkinsville, Ky.
Ozark Oak Flooring Co., Inc., Bismarck, Mo.
Pancoast, Russell T., Miami Beach, Fla.
Paterson-McInnis Lumber Co., Gulf Hammock, Fla.
Patton Lumber Co., Ashland, Ky.
Paulson Lumber Sales Agency, Seattle, Wash.
Peerless Flooring Co., High Point, N. C.
Pehrson, G. A., Spokane, Wash.
Pennsylvania State College, The, Department of Forestry, State College, Pa. (In principle.)
Pepper, Geo. W., Jr., Philadelphia, Pa.
Perfection Oak Flooring Co., Inc., Shreveport, La.
Pollock Lumber & Supply Co., Fort Myers, Fla.
Portsmouth Lumber Corporation, Portsmouth, Va.
Provine, L. H., Urbana, Ill. (In principle.)

Putnam & Jones, Carthage, Mo.
Reeder Co., L. D., Los Angeles, Calif.
Reid, William H., Jr., Billings, Mont.
Rice & Lockwood Lumber Co., Springfield, Mass.
Richards, McCarty & Bulford, Columbus, Ohio.
Richmond Lumber Co., Richmond, Ind.
Rindge & Rindge, Grand Rapids, Mich.
Risser, Lumber Co., Art, Paris, Ill.
Rittenhouse & Embree Co., Chicago, Ill.
Rix Lumber Co., Graceville, Fla.
Robbins Flooring Co., Rhinelander, Wis.
Robert & Co., Atlanta, Ga.
Rockwell Bros. & Co., Houston, Tex.
Rounds & Porter Co., Wichita, Kans.
Ruggles Lumber Co., Carlos, Springfield, Mass.
Ryness Flooring Co., Los Angeles, Calif.
Saloy, Inc., William, Jamaica, N. Y.
Santa Fe Lumber Co., San Francisco, Calif.
Schaeffer & Hooton, Bloomington, Ill.
Schell-Sasse Manufacturing Co., Jacksonville, Fla.
Schneider, Wm A., Milwaukee, Wis.
Schneitter Lumber Mills Co., St. Joseph, Mo.
Schoeppe, Edward, Philadelphia, Pa.
Schofield, George M., Nyack, N. Y.
Scott Lumber Co., A. L., Topeka, Kans.
Searle & Chapin Lumber Co., Lincoln, Nebr.
Sears, Roebuck & Co., Chicago, Ill.
Seyler Lumber Co., Bluefield, W. Va.
Shaver, Chas. W., Salina, Kans.
Shenk Co., Henry, Erie, Pa.
Shire, Edward I., New York, N. Y.
Simons Lumber Co., Henry, Minneapolis, Minn.
Sirrine & Co., J. E., Greenville, S. C.
Sleeper, Harold R., New York, N. Y.
Smith & Sons, J. E., Philadelphia, Pa.
Solie Lumber Co., Janesville, Wis.
Sones Lumber Co., El Centro, Calif.
South Texas Lumber Co., Houston, Tex.
Southern Lumber Co., Warren, Ark.
Southwestern Bell Telephone Co., St. Louis, Mo.
Spahn & Rose Lumber Co., Dubuque, Iowa.
Specification Record, Chicago, Ill.
Standard Lumber Co., Spokane, Wash.
Star Lumber Co., The, Liberal, Kans.
Start, Cedric, Hollywood, Fla.
Staub, John F., Houston, Tex.
Stewart Lumber Co., A. P., Thermopolis, Wyo.
Stockton Lumber Co., Inc., Stockton, Calif.
Stoetzel, Ralph E., Chicago, Ill.
Stopper, Eugene A., Philadelphia, Pa.
Stowers, Lumber & Manufacturing Co., Harriman, Tenn.
Strong & Hale Lumber Co., The, Portland, Conn.
Stuart Lumber Corporation, Stuart, Va.
Sunshine Lumber & Supply Co., St. Petersburg, Fla.
Swan Lake Moulding Co., Klamath Falls, Oreg.
Taylor, Ellery K., Philadelphia, Pa.
Taylor, Henry L., St. Petersburg, Fla.
Taylor, Edward Cray, & Ellis Wing, Los Angeles, Calif.
Tennessee Flooring Co., Inc., Knoxville, Tenn.
Texas Oak Flooring Co., Dallas, Tex.
Thorne, Henry Calder, Ithaca, N. Y.
Tolles-Bickford Lumber Co., Inc., Nashua, N. H.
Troast & Associates, N. Lester, Juneau, Alaska.
Tuttle Bros., Inc., Westfield, N. J.
Van Winkle Bromley Lumber Co., Paterson, N. J.
Varner Lumber Co., Dallas, Tex.
Veterans Memorial Bldg., Long Beach, Calif.
Vickere Lumber Co., T. W., Sheridan, Wyo.
Virginia Oak Flooring Co., Pulaski, Va.
Virginia Polytechnic Institute, Blacksburg, Va.
Voell, Richard F., Alexandria, Va.
Vogel, Willis A., Toledo, Ohio.
Walsh, Louis A., Waterbury, Conn.
Waples-Painter Co., Gainesville, Tex.
Weinberg, Joseph L., Cleveland, Ohio.
Weinel Lumber Co., A. F., Columbia, Ill.
Welch, Carroll I., Huntington, N. Y.
West Frankfort Lumber Co., W. Frankfort, Ill.
Westchester Floorcraft Co., New Rochelle, N. Y.
Whitaker, Courtney L., Dravosburg, Pa.
White Brothers, San Francisco, Calif.
White & Todd, Aurora, Ill.
Whitsitt, H. W., San Francisco, Calif.
Wichita, City of, Inspection Department, Wichita, Kans. (In principle.)
Wilbur Lumber Co., West Allis, Wis.
Willatsen, Andrew, Seattle, Wash.
Williamson, E. H., Elkins, W. Va.
Willson, Fred F., Bozeman, Mont.
Wischmeyer, William F., St. Louis, Mo.
Wisconsin's Transfer Yard, Oshkosh, Wis.
Woltersdorf, Arthur, Chicago, Ill.
Wood Lumber Co., Birmingham, Ala.
Wood-Mosaic Co., Inc., Louisville, Ky.
Wood & Son, Associates, Edward J., Clarksburg, W. Va.
Yates American Machine Co., Beloit, Wis.
Zimmerman, A. C., Los Angeles, Calif.
Zoller & Muller, New York, N. Y.

U. S. GOVERNMENT

Agriculture, U. S. Department of, Washington, D. C.

Federal Loan Agency, Federal Housing Administration, Washington, D. C.
Federal Loan Agency, Home Owners' Loan Corporation, Washington, D. C.
Federal Works Agency, Public Buildings Administration, Washington, D. C. (In principle.)
Federal Works Agency, United States Housing Authority, Washington, D. C. (In principle.)
Federal Works Agency, Work Projects Administration, Seattle, Wash.
Interior, U. S. Department of, Bonneville Power Administration, Portland, Oreg.
Treasury Department, Washington D. C.
Veterans' Administration, Washington, D. C.
War Department, Washington, D. C.

COMMERCIAL STANDARDS

CS No. Item

0–40. Commercial standards and their value to business (third edition).
1–32. Clinical thermometers (second edition).
2–30. Mopsticks.
3–40. Stoddard solvent (third edition).
4–29. Staple porcelain (all-clay) plumbing fixtures.
5–40. Pipe nipples; brass, copper, steel, and wrought iron.
6–31. Wrought-iron pipe nipples (second edition). Superseded by CS5–40.
7–29. Standard weight malleable iron or steel screwed unions.
8–41. Gage blanks (third edition).
9–33. Builders' template hardware (second edition).
10–29. Brass pipe nipples. Superseded by CS5–40.
11–29. Regain of mercerized cotton yarns.
12–40. Fuel oils (fifth edition).
13–39. Dress patterns (second edition).
14–39. Boys' button-on wasits, shirts, junior and polo shirts (made from woven fabrics) (second edition).
15–29. Men's pajamas.
16–29. Wallpaper.
17–32. Diamond core drill fittings (second edition).
18–29. Hickory golf shafts.
19–32. Foundry patterns of wood (second edition).
20–36. Staple vitreous china plumbing fixtures (second edition).
21–39. Interchangeable ground-glass joints, stopcocks, and stoppers (fourth edition).
22–40. Builders' hardware (nontemplate) (second edition).
23–30. Feldspar.
24–30. Standard screw threads.
25–30. Special screw threads.
26–30. Aromatic red cedar closet lining.
27–36. Mirrors (second edition).
28–32. Cotton fabric tents, tarpaulins, and covers.
29–31. Staple seats for water-closet bowls.
30–31. Colors for sanitary ware.
31–38. Wood shingles (fourth edition).
32–31. Cotton cloth for rubber and pyroxylin coating.
33–32. Knit underwear (exclusive of rayon).
34–31. Bag, case, and strap leather.
35–31. Plywood (hardwood and eastern red cedar).
36–33. Fourdrinier wire cloth (second edition).
37–31. Steel bone plates and screws.
38–32. Hospital rubber sheeting.
39–37. Wool and part wool blankets (second edition)
40–32. Surgeons' rubber gloves.
41–32. Surgeons' latex gloves.
42–35. Fiber insulating board (second edition).
43–32. Grading of sulphonated oils.
44–32. Apple wraps.
45–40. Douglas fir plywood (domestic grades) (fourth edition).
46–40. Hosiery lengths and sizes (third edition).
47–34. Marking of gold-filled and rolled-gold-plate articles other than watch cases.
48–40. Domestic burners for Pennsylvania anthracite (underfeed type) (second edition).
49–34. Chip board laminated chip board, and miscellaneous boards for bookbinding purposes.
50–34. Binders, board for bookbinding and other purposes.

CS No. Item

51–35. Marking articles made of silver in combination with gold.
52–35. Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze).
53–35. Colors and finishes for cast stone.
54–35. Mattresses for hospitals.
55–35. Mattresses for institutions.
56–41. Oak flooring (second edition).
57–40. Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings (second edition).
58–36. Woven elastic fabrics for use in overalls (overall elastic webbing).
59–41. Woven textile fabrics—testing and reporting (third edition).
60–36. Hardwood dimension lumber.
61–37. Wood-slat venetian blinds.
62–38. Colors for kitchen accessories.
63–38. Colors for bathroom accessories.
64–37. Walnut veneers.
65–38. Wool and part-wool fabrics.
66–38. Marking of articles made wholly or in part of platinum.
67–38. Marking articles made of karat gold.
68–38. Liquid hypochlorite disinfectant, deodorant, and germicide.
69–38. Pine oil disinfectant.
70–41. Phenolic disinfectant (emulsifying type) (second edition) (published with CS71–41).
71–41. Phenolic disinfectant (soluble type) (second edition) (published with CS80–41).
72–38. Household insecticide (liquid spray type).
73–38. Old growth Douglas fir standard stock doors.
74–39. Solid hardwood wall paneling.
75–39. Automatic mechanical draft oil burners.
76–39. Hardwood interior trim and molding.
77–40. Sanitary cast-iron enameled ware.
78–40. Ground-and-polished lenses for sun glasses (second edition) (published with CS79–40).
79–40. Blown, drawn, and dropped lenses for sun glasses (second edition) (published with CS78–40).
80–41. Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market).
81–41. Adverse-weather lamps for vehicles (after market).
82–41. Inner-controlled spotlamps for vehicles (after market).
83–41. Clearance marker, and identification lamps for vehicles (after market).
84–41. Electric tail lamps for vehicles (after market).
85–41. Electric license-plate lamps for vehicles (after market).
86–41. Electric stop lamps for vehicles (after market).
87–41. Red electric warning lanterns.
88–41. Liquid-burning flares.
89–40. Hardwood stair treads and risers.
90– . (Reserved for power shovels and cranes).
91–41. Factory fitted Douglas fir entrance doors.

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington, D. C.

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