

UNITED STATES DEPARTMENT OF COMMERCE
HARRY L. HOPKINS, Secretary
NATIONAL BUREAU OF STANDARDS
LYMAN J. BRIGGS, Director

OLD GROWTH DOUGLAS FIR STANDARD STOCK DOORS

Bureau of Standards

FEB 20 1939 COMMERCIAL STANDARD CS73-38

Effective Date, June 30, 1938



A RECORDED STANDARD OF THE INDUSTRY

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PROMULGATION
of
COMMERCIAL STANDARD CS73-38
for
OLD GROWTH DOUGLAS FIR STANDARD STOCK
DOORS

On April 4, 1938, at the instance of the Fir Door Institute, a general conference of representative manufacturers, distributors, and users of old growth Douglas fir standard stock doors adopted a recommended commercial standard for this commodity. The industry has since accepted and approved for promulgation by the United States Department of Commerce, through the National Bureau of Standards, the standard as shown herein.

The studies which led to the establishment of this standard were made possible by an allotment from the Bureau's 1938 appropriation for the Investigation of Building Materials.

The standard became effective for new production on June 30, 1938.

Promulgation recommended.

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

Promulgated.

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

Promulgation approved.

Harry L. Hopkins,
Secretary of Commerce.

OLD GROWTH DOUGLAS FIR STANDARD STOCK DOORS¹

COMMERCIAL STANDARD CS73-38

PURPOSE

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

2. In the development of these standards there is no desire to suppress architectural expression and custom made doors will still be available from the usual sources. However, the establishment of construction standards, together with universally accepted sizes and layouts, should prove highly advantageous by eliminating the causes of many misunderstandings occurring through the lack of standards, and produce economies in manufacture and sale which should be shared by the ultimate home owner.

SCOPE

3. This standard provides minimum specifications for grades of stock fir doors in four thicknesses, $\frac{3}{4}$, $1\frac{1}{8}$, $1\frac{1}{2}$, and $1\frac{3}{4}$ inches. It covers construction, defects, and the grading tolerances for these requirements. There are standard stock layouts and designs covered in door sizes ranging as follows, and in accordance with detailed schedules of Douglas fir stock door list beginning on page 6.

| | |
|---------------------|-------------------------|
| Cupboard doors..... | 1'0"×1'6" to 2'0"×6'0". |
| Side lights..... | 1'0"×6'8" to 1'6"×7'0". |
| House doors..... | 1'6"×6'0" to 3'6"×8'0". |
| Garage doors..... | 2'0"×7'0" to 4'0"×8'0". |

GENERAL REQUIREMENTS

4. All commercial standard fir doors shall meet the following general requirements.

5. *Material*.—Doors shall be made of kiln-dried, old-growth Douglas fir.

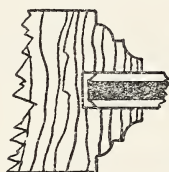
6. *Workmanship*.—Doors shall be well manufactured and machined, and both faces shall have flat surfaces; that is, with stiles, rails, and panels smoothly sanded.

¹ Old growth Douglas fir is a term generally applied to distinguish the wood developed in the later stages of the tree's growth. It is generally free from knots; of medium density with fairly close, uniformly spaced growth rings; and usually of uniform light yellowish or pinkish color. Contrasted to this is the early growth sometimes referred to as red fir, which, while of the same species and perhaps of the same tree, is generally knotty; of low density with wide and sometimes irregular growth rings; and usually a red color.

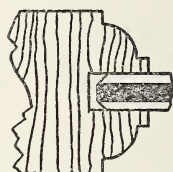
7. *Construction.*—Doors shall be assembled by what is known as “dowelled construction”; that is, stiles and rails to be bored to receive fir dowels not less than $\frac{3}{8}$ inch in diameter by 5 inches long for doors $\frac{3}{4}$ inch thick, and not less than $\frac{5}{8}$ inch in diameter by 5 inches long for doors $1\frac{1}{8}$, $1\frac{3}{8}$, and $1\frac{3}{4}$ inches thick. The dowels shall have glue grooves. Dowels shall be set in glue and extend approximately one-half their length into each stile and rail, and assembled under pressure. Because of the fact that all present standard door boring machines are built for $2\frac{1}{4}$ -inch dowel centers, the required number of dowels used in joining rails to stiles are therefore limited according to the width of the rails, and shall be based on a minimum number of dowels at each end of rails as follows:

| | |
|--|-----------|
| Rails under $4\frac{1}{2}$ " wide..... | 1 dowel. |
| Rails $4\frac{1}{2}$ " to 7" wide..... | 2 dowels. |
| Rails over 7" wide..... | 3 dowels. |

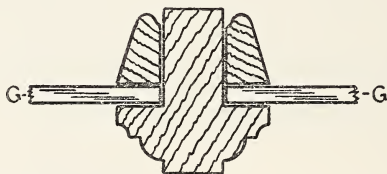
8. *Sticking.*—Three-eighths inch “bead and cove” or “ovolo” sticking shall be standard on all standard doors. “Bead and cove” sticking will be furnished, unless otherwise specified. (See fig. 1.)



BEAD & COVE STICKING



OVOLO STICKING



STANDARD PATTERN GLASS BEAD

FIGURE 1.—Sticking.

Defective sticking which may develop in machining must be carefully repaired or neatly replaced.

9. *Thicknesses.*—Doors shall be in the following thicknesses, and a thickness tolerance of minus $\frac{1}{16}$ inch shall be allowed:

| | |
|---------------------|---|
| Cupboard doors..... | $\frac{3}{4}$ " and $1\frac{1}{8}$ ". |
| Side lights..... | $1\frac{3}{8}$ " and $1\frac{3}{4}$ ". |
| House doors..... | $1\frac{1}{8}$ ", $1\frac{3}{8}$ ", and $1\frac{3}{4}$ ". |
| Garage doors..... | $1\frac{1}{8}$ ", $1\frac{3}{8}$ ", and $1\frac{3}{4}$ ". |

10. In standard practice, a length and width tolerance of plus $\frac{1}{8}$ inch shall be allowed. When so ordered, house doors will be trimmed to standard lengths with a tolerance of plus or minus $\frac{1}{32}$ inch. When

so trimmed, protection strips or skid blocks shall be applied to top and bottom ends.

INSPECTION AND LABELING

11. All doors guaranteed to conform to the Commercial Standard grading rules shall be grade-marked by stamp, brand, or label. All complaints involving the quality of any shipment must be made within 5 days from receipt thereof.

DETAIL REQUIREMENTS

12. Standard stock layouts and designs to which the subsequent design numbers refer are to be found in the Douglas fir stock door list beginning on page 6.

13. It is impossible to maintain absolutely arbitrary rules fixing grades, and slight variations within reason and governed by practical common sense may be expected. A shipment of any grade must represent a fair average of that grade.

14. Doors shall be graded on both sides or faces in accordance with the following standard grades. Grades *A*, *B*, and *C*, covering standard house doors, will be furnished in $1\frac{3}{8}$ - and $1\frac{3}{4}$ -inch thicknesses only. Standard side lights, and doors of special layout or design will be furnished in grade *A* only. Cupboard doors will be furnished in *B* and better grade only. House doors $1\frac{1}{2}$ inch thick will be furnished in "millrun" grade only.

HOUSE DOORS

Grade A.—RECOMMENDED FOR PAINT OR NATURAL OR STAIN FINISH

15. *Stiles and rails*.—This stock shall be of 100-percent heartwood, all vertical grain old growth Douglas fir, the faces which must be clear, with the exception that each stile may contain one carefully repaired pitch seam on each side, provided that such pitch seam does not extend through the piece nor exceed $3\frac{1}{2}$ inches in length. Such pitch pockets shall be not over 35 inches from the bottom of the door. Bottom rail may contain one neatly repaired pitch seam the same as the stiles.

16. *Panels—flat veneered*.—The standard thickness of 3-ply flat veneered panels shall be $\frac{1}{4}$ inch after sanding. They shall be No. 1 door panel grade; that is, "Each face shall be of a single piece of smoothly cut veneer of 100-percent heartwood free from knots, splits, checks, pitch pockets, and other open defects. The faces shall be a yellow or pinkish color without stain. Shims that occur only at the ends of panels and inconspicuous well-matched small patches not to exceed $\frac{3}{8}$ inch wide by $2\frac{1}{2}$ inches long shall be admitted."

17. *Panels—solid raised*.—The standard thickness of solid raised panels shall be not more than $\frac{1}{6}$ inch before sanding and not less than $\frac{1}{16}$ inch after sanding. They shall be either all vertical or all slash grain in any one door, and shall conform to the grade of the stiles and rails.

Grade B.—RECOMMENDED PRIMARILY FOR PAINT FINISH

18. *Stiles and rails.*—This stock shall be of vertical grain faces, with some coarse grain permitted. It shall be sound in all respects, and may contain sap, slight stains, and burls. Stiles, bottom rails, and wide lock rails may each contain two neatly repaired pitch seams not over 9 inches in length on each side. Remaining rails and mullions may each contain not over one such defect on each side.

19. *Panels—flat veneered.*—The standard thickness of 3-ply flat veneered panels shall be $\frac{1}{4}$ inch after sanding. They shall be of No. 2 door panel grade; that is, "Each face shall be of a single piece of veneer that is free of knots and other open defects, but may admit medium stain and discoloration. Patches not to exceed $\frac{1}{8}$ by $2\frac{1}{2}$ inches and shims of any size when reasonably selected for color and grain, are admissible."

20. *Panels—raised.*—The standard thickness of raised panels shall be not more than $\frac{1}{16}$ inch before sanding and not less than $\frac{1}{16}$ inch after sanding. They may be either slash or mixed grain, and shall conform to the grade of the stiles and rails.

GRADE C—RECOMMENDED FOR PAINT FINISH ONLY

21. This grade shall be manufactured and sold only in the standard designs, as specifically indicated in the layout details on pages 12, 19, 20, 21, and 22.

22. *Stiles and rails.*—This stock may be of mixed grain, and may contain any amount of discolored sap or heartwood, burls, solid pitch, streaks, any number and size of repaired pitch seams, or other sound defects not otherwise permitted in the higher grades, providing it presents a solid surface. Glued-up bottom rails are permissible.

23. *Panels—flat veneered.*—The standard thickness of 3-ply flat veneered panels shall be $\frac{1}{4}$ inch after sanding. They shall be No. 3 door panel grade; that is, "Each face shall present a smooth surface suitable for painting. Discoloration, unmatched patches, shims and/or taped faces are admissible."

24. *Panels—raised.*—The standard thickness of raised panels shall be not more than $\frac{1}{16}$ inch before sanding and not less than $\frac{1}{16}$ inch after sanding. They shall conform to the grade of the stiles and rails. Two-piece, glued-up, solid panels are permissible.

MILLRUN GRADE

25. *Stiles and rails.*—This grade shall be manufactured and sold in $1\frac{1}{2}$ -inch thickness only developed and accumulated by planing down stock too thin for $1\frac{3}{8}$ -inch thickness, consequently it will include an undetermined amount of all or any of the other grades. This grade and thickness shall be confined to the following standard designs: Storm doors, cupboard doors, F5, F117, F118, F119, and F214. (See stock door list beginning on page 6.)

26. *Panels—flat veneered.*—The standard thickness of 3-ply, flat veneered panels shall be $\frac{1}{4}$ -inch after sanding. They shall conform to the No. 2 and/or No. 3 door panel grades, described above.

27. *Panels—raised.*—The standard thickness of raised panels shall be not more than $\frac{1}{16}$ -inch before sanding, and not less than $\frac{1}{16}$ -inch after sanding. They shall conform to the grades applying to grade B and/or grade C doors, described above.

GARAGE DOORS

Manufactured primarily for paint finish in one quality only, which is described below.

28. *Stiles and rails*.—This stock shall be substantially all vertical grain, with accumulations of coarse or mixed grain permitted. It shall be sound in all respects, and may contain sap, stain, burls, pitch streaks, and neatly repaired pitch seams.

29. *Panels—flat veneered*.—The standard thickness of 3-ply flat veneered panels shall be $\frac{1}{4}$ -inch after sanding. They shall be of No. 2 door panel grade, as described under paragraph 19.

30. *Panels—solid raised*.—The standard thickness of solid raised panels shall be not more than $\frac{5}{16}$ -inch before sanding and not less than $\frac{1}{16}$ -inch after sanding. They may be vertical, slash, or mixed grain, at the option of the manufacturer, and shall conform to the grade of the stiles and rails.

31. *Batten garage doors (designs F190 and F290)*.—The stiles and battens shall have all vertical grain faces, which shall be clear, except that neatly repaired pitch seams, not to exceed 4 inches in length, and at a minimum distance of 2 feet apart either way, will be admitted on each face of the door.

DESIGNS AND LAYOUTS

32. House doors of any design narrower than 1 foot 6 inches will be furnished with stiles $3\frac{1}{16}$ inches in width, over-all, unless otherwise specified.

33. Measurements for stiles, rails, and muntins shown in layouts are over-all, including sticking. Glass measurements shown may vary slightly.

TABLE 1.—Door sizes (in feet and inches)

| Standard sizes, cupboard doors | | Standard sizes, house doors | | Standard sizes, side lights | Standard sizes, garage doors | | |
|--------------------------------|---------|-----------------------------|---------|-----------------------------|------------------------------|---------|---------|
| 1-0×1-6 | 1-0×4-0 | 2-0×6-0 | 1-6×7-0 | 10'' ×6-8 | 2-0×7-0 | 2-0×7-6 | 2-0×8-0 |
| 1-2 | 1-2 | 2-4 | 1-8 | 1-0 | 2-4 | 2-4 | 2-4 |
| 1-4 | 1-4 | 2-6 | 1-10 | 1-2 | 2-6 | 2-6 | 2-6 |
| 1-6 | 1-6 | 2-8 | 2-0 | 1-4 | 2-8 | 2-8 | 2-8 |
| 1-8 | 1-8 | 3-0 | 2-2 | 1-6 | 3-0 | 3-0 | 3-0 |
| 1-10 | 1-10 | | 2-4 | | 3-6 | 3-6 | 3-6 |
| 2-0 | 2-0 | 2-6×6-4 | 2-6 | 10'' ×6-10 | 3-9 | 3-9 | 3-9 |
| | | | 2-8 | 1-0 | 4-0 | 4-0 | 4-0 |
| 1-0×2-0 | 1-0×4-6 | 1-6×6-6 | 2-10 | 1-2 | | | |
| 1-2 | 1-2 | 1-8 | 3-0 | 1-4 | | | |
| 1-4 | 1-4 | 1-10 | 3-4 | 1-6 | | | |
| 1-6 | 1-6 | 2-0 | 3-6 | | | | |
| 1-8 | 1-8 | 2-2 | | 10'' ×7-0 | | | |
| 1-10 | 1-10 | 2-4 | 2-0×7-6 | 1-0 | | | |
| 2-0 | 2-0 | 2-6 | 2-4 | 1-2 | | | |
| | | 2-8 | 2-6 | 1-4 | | | |
| | | 3-0 | 2-8 | 1-6 | | | |
| 1-0×2-6 | 1-0×5-0 | | 2-10 | | | | |
| 1-2 | 1-2 | | 3-0 | | | | |
| 1-4 | 1-4 | 1-6×6-8 | 3-4 | | | | |
| 1-6 | 1-6 | 1-8 | 3-6 | | | | |
| 1-8 | 1-8 | 1-10 | | | | | |
| 1-10 | 1-10 | 2-0 | | | | | |
| 2-0 | 2-0 | 2-2 | 2-0×8-0 | | | | |
| | | 2-4 | 2-4 | | | | |
| 1-0×3-0 | 1-0×5-6 | 2-6 | 2-6 | | | | |
| 1-2 | 1-2 | 2-8 | 2-8 | | | | |
| 1-4 | 1-4 | 2-10 | 2-10 | | | | |
| 1-6 | 1-6 | 3-0 | 3-0 | | | | |
| 1-8 | 1-8 | | 3-4 | | | | |
| 1-10 | 1-10 | 2-0×6-10 | 3-6 | | | | |
| 2-0 | 2-0 | 2-2 | | | | | |
| | | 2-4 | | | | | |
| 1-0×3-6 | 1-0×6-0 | 2-6 | | | | | |
| 1-2 | 1-2 | 2-8 | | | | | |
| 1-4 | 1-4 | 2-10 | | | | | |
| 1-6 | 1-6 | 3-0 | | | | | |
| 1-8 | 1-8 | | | | | | |
| 1-10 | 1-10 | | | | | | |
| 2-0 | 2-0 | | | | | | |

DOUGLAS FIR STOCK DOOR LIST

34. The stock layouts and designs for old growth Douglas fir doors are illustrated below.

35. An index immediately follows showing the various use classifications including "front entrance doors," "interior doors," etc., and indicating the identifying stock number, a brief description of the panel arrangement, and the pages on which the illustrations and dimensions appear.

36. A second index is arranged on the basis of numerical arrangement of the stock numbers.

"USE" CLASSIFICATION INDEX

FRONT ENTRANCE DOORS

| Stock number | Description | Page |
|---------------------|---------------------------------|------|
| F66, F67 | 6 panel Colonial | 12 |
| F88 | 8 equal panel | 12 |
| F144 | 2 panel (vertical)—1 light | 14 |
| F145 | 3 panel (2 vertical)—1 light | 14 |
| F182 | 1 panel—1 light | 15 |
| F982 | 1 panel—9 light (3 wide—3 high) | 15 |
| F152 | 5 panel—1 light | 16 |
| F154 | 6 panel—1 light | 16 |
| F62 | 3 panel (2 vertical) | 17 |
| F162 | 2 panel (vertical)—1 light | 17 |
| F63 | 4 panel (3 vertical) | 17 |
| F163 | 3 panel (vertical)—1 light | 17 |
| F108, F109 | 1 panel—1 light | 15 |
| F128, F129 | do | 16 |
| F147 | do | 19 |
| F214H | 3 panel—3 light (horizontal) | 20 |
| F415H | 2 panel—4 light (horizontal) | 19 |
| F110, F111 | 1 panel—1 light | 18 |
| F310, F311 | 1 panel—3 light (vertical) | 18 |
| F610, F611 | 1 panel—6 light (3 wide—2 high) | 18 |
| F810, F811 | 1 panel—8 light (4 wide—2 high) | 18 |
| F35, F36, F37 | 1 light | 23 |
| F535, F536, F537 | 5 light (horizontal) | 23 |
| F835, F836, F837 | 8 light (horizontal) | 23 |
| F935M, F936M, F937M | 9 light (marginal) | 23 |
| F1035, F1036, F1037 | 10 light (2 wide—5 high) | 24 |
| F1235, F1236, F1237 | 12 light (3 wide—4 high) | 24 |
| F1535, F1536, F1537 | 15 light (3 wide—5 high) | 24 |
| F1635, F1636, F1637 | 16 light (2 wide—8 high) | 24 |

SIDE LIGHTS

| | | |
|--------|--------------------|----|
| F035 | 1 light | 25 |
| F0535 | 5 light | 25 |
| F0635M | 6 light (marginal) | 25 |

"USE" CLASSIFICATION INDEX—Continued

INTERIOR DOORS

| Stock number | Description | Page |
|---------------------|--------------------------|------|
| F1, F2 | 1 panel (insert) | 11 |
| F20, F21, F22 | 1 panel | 11 |
| F82 | 2 panel | 15 |
| F28, F29 | do | 16 |
| F80 | 2 panel (vertical) | 11 |
| F3 | 3 equal panel | 13 |
| F33 | 3 panel | 13 |
| F62 | 3 panel (2 vertical) | 17 |
| F63 | 4 panel (3 vertical) | 17 |
| F44 | 4 panel (vertical) | 14 |
| F5 | 5 cross panel | 12 |
| F45 | 5 regular panel | 14 |
| F66, F67 | 6 panel Colonial | 12 |
| F88 | 8 equal panel | 12 |
| F535, F536, F537 | 5 light (horizontal) | 23 |
| F835, F836, F837 | 8 light (horizontal) | 23 |
| F1035, F1036, F1037 | 10 light (2 wide—5 high) | 24 |
| F1235, F1236, F1237 | 12 light (3 wide—4 high) | 24 |
| F1535, F1536, F1537 | 15 light (3 wide—5 high) | 24 |
| F1635, F1636, F1637 | 16 light (2 wide—8 high) | 24 |

REAR ENTRANCE DOORS

| | | |
|------------|---------------------------------|----|
| F13 | 2 panel—1 light | 13 |
| F133 | do | 13 |
| F108, F109 | 1 panel—1 light | 15 |
| F128, F129 | do | 16 |
| F147 | do | 19 |
| F182 | do | 15 |
| F982 | 1 panel—9 light (3 wide—3 high) | 15 |
| F114 | 2 panel—1 light | 19 |
| F415 | 2 panel—4 light (2 wide—2 high) | 19 |
| F415H | 2 panel—4 light (horizontal) | 19 |
| F416 | 3 panel—4 light (2 wide—2 high) | 21 |
| F214 | 3 panel—1 light | 20 |
| F214H | 3 panel—3 light (horizontal) | 20 |
| F117 | 4 panel—1 light | 20 |
| F117½ | 5 panel—1 light | 20 |
| F118 | 3 panel—1 light | 21 |
| F118½ | 4 panel—1 light | 21 |
| F318 | 3 panel—3 light (vertical) | 22 |
| F418 | 3 panel—4 light (vertical) | 22 |
| F618 | 3 panel—6 light (3 wide—2 high) | 22 |
| F918 | 3 panel—9 light (3 wide—3 high) | 22 |

STORM DOORS

| | | |
|------|-----------------|----|
| FS7 | 7 panel | 25 |
| FS07 | 5 panel—1 light | 25 |

"USE" CLASSIFICATION INDEX—Continued

CUPBOARD DOORS

| Stock number | Description | Page |
|--------------|-------------|------|
| F05 | Cross panel | 26 |
| F020 | 1 panel | 26 |
| F082 | 2 panel | 26 |

GARAGE DOORS

| | | |
|------|----------------------------|----|
| F491 | Saw-buck—4 light | 26 |
| F691 | Saw-buck—6 light | 26 |
| F493 | 2 panel (vertical)—4 light | 27 |
| F693 | 3 panel (vertical)—6 light | 27 |
| F495 | 4 cross panel—4 light | 27 |
| F695 | 4 cross panel—6 light | 27 |
| F496 | 4 panel—4 light | 28 |
| F696 | 6 panel—6 light | 28 |
| F894 | 4 panel—8 light | 28 |
| F190 | Flush door—1 light | 29 |
| F290 | Flush door—2 light | 29 |

STOCK NUMBER INDEX

HOUSE DOORS

| Stock number | Description | Page |
|--------------|----------------------|------|
| F1 | 1 panel (insert) | 11 |
| F2 | do | 11 |
| F3 | 3 panel | 13 |
| F5 | 5 cross panel | 12 |
| F13 | 2 panel—1 light | 13 |
| F20 | 1 panel | 11 |
| F21 | do | 11 |
| F22 | do | 11 |
| F28 | 2 panel | 16 |
| F29 | do | 16 |
| F33 | 3 panel | 13 |
| F35 | 1 light | 23 |
| F36 | do | 23 |
| F37 | do | 23 |
| F44 | 4 panel (vertical) | 14 |
| F45 | 5 panel (4 vertical) | 14 |
| F62 | 3 panel (2 vertical) | 17 |
| F63 | 4 panel (3 vertical) | 17 |
| F66 | 6 panel Colonial | 12 |
| F67 | do | 12 |
| F80 | 2 panel (vertical) | 11 |
| F82 | 2 panel | 15 |
| F88 | 8 panel | 12 |
| F108 | 1 panel—1 light | 15 |
| F109 | do | 15 |
| F110 | do | 18 |
| F111 | do | 18 |
| F114 | 2 panel—1 light | 19 |
| F117 | 4 panel—1 light | 20 |

STOCK NUMBER INDEX—Continued

HOUSE DOOR—Continued

| Stock number | Description | Page |
|--------------|---------------------------------|------|
| F117½ | 5 panel—1 light | 20 |
| F118 | 3 panel—1 light | 21 |
| F118½ | 4 panel—1 light | 21 |
| F128 | 1 panel—1 light | 16 |
| F129 | do | 16 |
| F133 | 2 panel—1 light | 13 |
| F144 | 2 panel (vertical)—1 light | 14 |
| F145 | 3 panel (2 vertical)—1 light | 14 |
| F147 | 1 panel—1 light | 19 |
| F152 | 5 panel—1 light | 16 |
| F154 | 6 panel—1 light | 16 |
| F162 | 2 panel (vertical)—1 light | 17 |
| F163 | 3 panel (vertical)—1 light | 17 |
| F182 | 1 panel—1 light | 15 |
| F214 | 3 panel—1 light | 20 |
| F214H | 3 panel—3 light (horizontal) | 20 |
| F310 | 1 panel—3 light (vertical) | 18 |
| F311 | do | 18 |
| F318 | 3 panel—3 light (vertical) | 22 |
| F415 | 2 panel—4 light (2 wide—2 high) | 19 |
| F415H | 2 panel—4 light (horizontal) | 19 |
| F416 | 3 panel—4 light (2 wide—2 high) | 21 |
| F418 | 3 panel—4 light (vertical) | 22 |
| F535 | 5 light (horizontal) | 23 |
| F536 | do | 23 |
| F537 | do | 23 |
| F610 | 1 panel—6 light (3 wide—2 high) | 18 |
| F611 | do | 18 |
| F618 | 3 panel—6 light (3 wide—2 high) | 22 |
| F810 | 1 panel—8 light (4 wide—2 high) | 18 |
| F811 | do | 18 |
| F835 | 8 light (horizontal) | 23 |
| F836 | do | 23 |
| F837 | do | 23 |
| F918 | 3 panel—9 light | 22 |
| F935M | 9 light (marginal) | 23 |
| F936M | do | 23 |
| F937M | do | 23 |
| F982 | 1 panel—9 light (3 wide—3 high) | 15 |
| F1035 | 10 light (2 wide—5 high) | 24 |
| F1036 | do | 24 |
| F1037 | do | 24 |
| F1235 | 12 light (3 wide—4 high) | 24 |
| F1236 | do | 24 |
| F1237 | do | 24 |
| F1535 | 15 light (3 wide—5 high) | 24 |
| F1536 | do | 24 |
| F1537 | do | 24 |
| F1635 | 16 light (2 wide—8 high) | 24 |
| F1636 | do | 24 |
| F1637 | do | 24 |

STOCK NUMBER INDEX—Continued

SIDE LIGHTS

| Stock number | Description | Page |
|--------------|-------------------------|------|
| F035..... | 1 light..... | 25 |
| F0535..... | 5 light..... | 25 |
| F0635M..... | 6 light (marginal)..... | 25 |

STORM DOORS

| | | |
|-----------|----------------------|----|
| FS07..... | 5 panel—1 light..... | 25 |
| FS7..... | 7 panel..... | 25 |

CUPBOARD DOORS

| | | |
|-----------|------------------|----|
| F05..... | Cross panel..... | 26 |
| F020..... | 1 panel..... | 26 |
| F082..... | 2 panel..... | 26 |

GARAGE DOORS

| | | |
|-----------|-----------------------------------|----|
| F190..... | Flush door—1 light..... | 29 |
| F290..... | Flush door—2 light..... | 29 |
| F491..... | Saw-buck—4 light..... | 26 |
| F493..... | 2 panel—4 light..... | 27 |
| F495..... | 4 panel (horizontal)—4 light..... | 27 |
| F496..... | 4 panel—4 light..... | 28 |
| F691..... | Saw-buck—6 light..... | 26 |
| F693..... | 3 panel—6 light..... | 27 |
| F695..... | 4 panel (horizontal)—6 light..... | 27 |
| F696..... | 6 panel—6 light..... | 28 |
| F894..... | 4 panel—8 light..... | 28 |

HOUSE DOORS

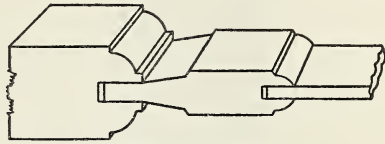
F 1
F 2



Stiles and top rail..... 4 1/8"
Bottom rail..... 9 3/8"
Insert frame..... 2 1/8"

3-ply laminated flat panel. Furnished in grades A and B only.

F 1



Raised insert frame. Sticking: Ovolo.

F 2



Flat insert frame. Sticking: P & G.

F 20
F 21
F 22



| | | | |
|------------------|--------|---------|---------|
| | F 20 | F 21 | F 22 |
| Stiles..... | 4 1/8" | 4 1/8" | 5 3/8" |
| Top rail..... | 4 1/8" | 5 3/8" | 5 3/8" |
| Bottom rail..... | 9 3/8" | 11 3/8" | 11 3/8" |

3-ply laminated flat panel. Furnished in grades A and B only. Sticking: Standard.

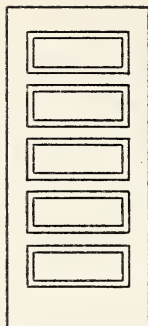
F 80



| | |
|--------------------------|--------|
| Stiles and top rail..... | 4 1/8" |
| Muntin..... | 4 1/2" |
| Bottom rail..... | 9 3/8" |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

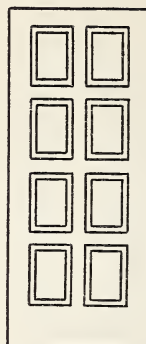
F 5



| | |
|--------------------------|--------------------|
| Stiles and top rail..... | 4 $\frac{1}{16}$ " |
| Intermediate rails..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 0 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A*, *B*, and *C* and 1 $\frac{1}{8}$ " millrun. Sticking: Standard.

F 88



| | |
|-------------------------------------|--------------------|
| Stiles and top rail..... | 4 $\frac{1}{16}$ " |
| Intermediate rails and muntins..... | 2 $\frac{7}{8}$ " |
| Bottom rail..... | 0 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

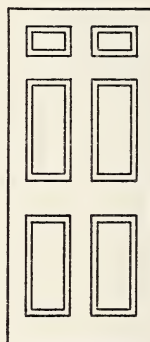
F 66



| | |
|--|---------------------|
| Stiles and top rail..... | 4 $\frac{1}{16}$ " |
| Lock rail..... | 8" |
| Intermediate rail and muntins..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 0 $\frac{3}{8}$ " |
| Height from floor to top of lock rail..... | 36 $\frac{1}{2}$ " |
| Height from top of intermediate rail to top of door..... | 12 $\frac{3}{16}$ " |
| Height of center panels vary with height of door. | |

Doors 1' 8" and narrower made one panel wide. 3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

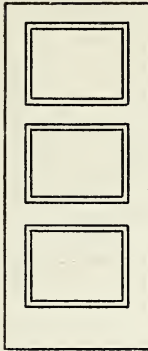
F 67



| | |
|--|---------------------|
| Stiles and top rail..... | 4 $\frac{1}{16}$ " |
| Lock rail..... | 9 $\frac{3}{8}$ " |
| Intermediate rail and muntins..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 7 $\frac{1}{16}$ " |
| Height from floor to top of lock rail..... | 41 $\frac{1}{16}$ " |
| Height from top of intermediate rail to top of door..... | 12 $\frac{3}{16}$ " |
| Height of center panels vary with height of door. | |

Doors 1' 8" and narrower made one panel wide. 3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

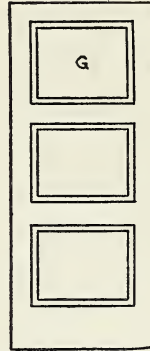
F 3



| | |
|--------------------------|--------|
| Stiles and top rail..... | 4 1/8" |
| Intermediate rails..... | 2 1/4" |
| Bottom rail..... | 9 3/8" |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

F 13



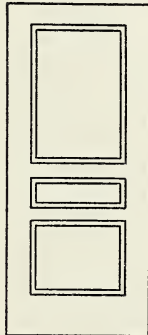
| | |
|--------------------------|--------|
| Stiles and top rail..... | 4 1/8" |
| Intermediate rails..... | 2 1/4" |
| Bottom rail..... | 9 3/8" |

3-ply laminated flat panels furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass |
|--------------------|-------------------|
| 2'6" x 6'6"..... | 21 5/8" x 20 5/8" |
| 2'8" x 6'8"..... | 23 3/8" x 21 3/4" |
| 2'10" x 6'10"..... | 25 5/8" x 22" |
| 3'0" x 7'0"..... | 27 5/8" x 22 1/4" |

Beads for glass included.

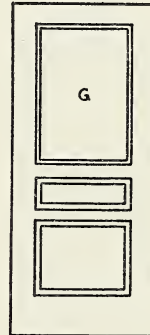
F 33



| | |
|---|---------|
| Stiles and top rail..... | 4 1/8" |
| Intermediate rails..... | 4 1/2" |
| Bottom rail..... | 9 3/8" |
| Height from floor to top of upper cross rail..... | 42 1/4" |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

F 133



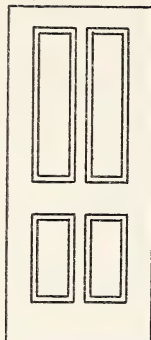
| | |
|--------------------------|--------|
| Stiles and top rail..... | 4 1/8" |
| Intermediate rails..... | 4 1/2" |
| Bottom rail..... | 9 3/8" |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass |
|--------------------|---------------|
| 2'6" x 6'6"..... | 21 5/8" x 32" |
| 2'8" x 6'8"..... | 23 3/8" x 34" |
| 2'10" x 6'10"..... | 25 5/8" x 36" |
| 3'0" x 7'0"..... | 27 5/8" x 38" |

Beads for glass included.

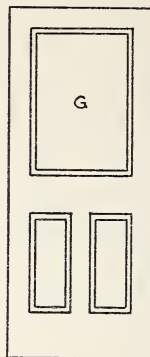
F 44



| | |
|--|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Lock rail..... | 8" |
| Muntins..... | 4 ¹ / ₂ " |
| Bottom rail..... | 9 ³ / ₈ " |
| Height from floor to top of lock rail..... | 36 ¹ / ₂ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

F144



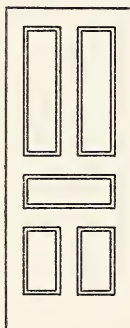
| | |
|--------------------------|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Lock rail..... | 8" |
| Muntins..... | 4 ¹ / ₂ " |
| Bottom rail..... | 9 ³ / ₈ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

| Size of door | Size of glass |
|--------------------|--|
| 2'6" x 6'6"..... | 21 ⁵ / ₈ " x 38" |
| 2'8" x 6'8"..... | 23 ⁵ / ₈ " x 40" |
| 2'10" x 6'10"..... | 25 ⁵ / ₈ " x 42" |
| 3'0" x 7'0"..... | 27 ⁵ / ₈ " x 44" |

Beads for glass included.

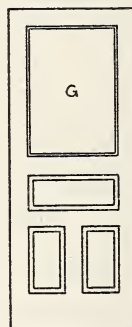
F 45



| | |
|---|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Intermediate rails and muntins..... | 4 ¹ / ₂ " |
| Bottom rail..... | 9 ³ / ₈ " |
| Height from floor to top of upper cross rail..... | 42 ¹ / ₄ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

F145



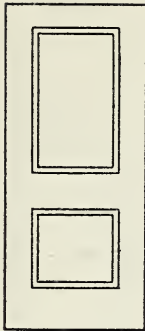
| | |
|------------------------------------|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Intermediate rails and muntin..... | 4 ¹ / ₂ " |
| Bottom rail..... | 9 ³ / ₈ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades *A* and *B* only. Sticking: Standard.

| Size of door | Size of glass |
|--------------------|--|
| 2'6" x 6'6"..... | 21 ⁵ / ₈ " x 32" |
| 2'8" x 6'8"..... | 23 ⁵ / ₈ " x 34" |
| 2'10" x 6'10"..... | 25 ⁵ / ₈ " x 36" |
| 3'0" x 7'0"..... | 27 ⁵ / ₈ " x 38" |

Beads for glass included.

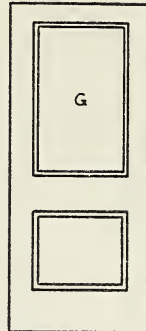
F 82



| | |
|---------------------------------|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Lock rail..... | 8" |
| Bottom rail..... | 93 ³ / ₈ " |
| Height to top of lock rail..... | 36 ¹ / ₂ " |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

F 182



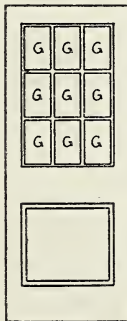
| | |
|--------------------------|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Lock rail..... | 8" |
| Bottom rail..... | 93 ³ / ₈ " |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

| | |
|--------------------|--|
| Size of door | Size of glass |
| 2'0" x 6'6"..... | 21 ⁵ / ₈ " x 38" |
| 2'8" x 6'8"..... | 23 ³ / ₈ " x 40" |
| 2'10" x 6'10"..... | 25 ³ / ₈ " x 42" |
| 3'0" x 7'0"..... | 27 ³ / ₈ " x 44" |

Beads for glass included.

F 982



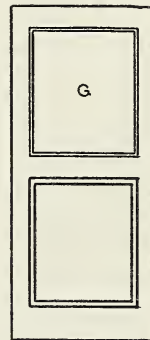
| | |
|--------------------------|----------------------------------|
| Stiles and top rail..... | 49 ¹ / ₈ " |
| Lock rail..... | 8" |
| Bottom rail..... | 93 ³ / ₈ " |

Bars 1/2" between glass. 3-ply laminated flat panel. Furnished in grades A and B only. Sticking: Standard.

| | |
|--------------------|---|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 6 ³ / ₈ " x 12 ³ / ₁₆ " |
| 2'8" x 6'8"..... | 7 ¹ / ₂ " x 13" |
| 2'10" x 6'10"..... | 8 ¹ / ₄ " x 13 ³ / ₈ " |
| 3'0" x 7'0"..... | 8 ³ / ₈ " x 14 ¹ / ₁₆ " |

Beads for glass included.

F 108
F 109



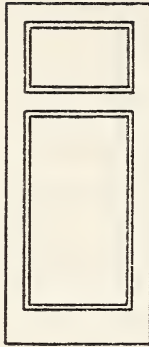
| | | |
|-------------------------|----------------------------------|----------------------------------|
| | F 108 | F 106 |
| Stiles..... | 49 ¹ / ₈ " | 53 ¹ / ₈ " |
| Top and lock rails..... | 53 ³ / ₈ " | 53 ³ / ₈ " |
| Bottom rail..... | 93 ³ / ₈ " | 93 ³ / ₈ " |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

| | | |
|--------------------|--|-----------|
| Size of door | Size of glass | |
| | F 108 | F 109 |
| 2'6" x 6'6"..... | 21 ⁵ / ₈ " x 26" | 20" x 26" |
| 2'8" x 6'8"..... | 23 ³ / ₈ " x 28" | 22" x 28" |
| 2'10" x 6'10"..... | 25 ³ / ₈ " x 30" | 24" x 30" |
| 3'0" x 7'0"..... | 27 ³ / ₈ " x 32" | 26" x 32" |

Beads for glass included.

F28
F29

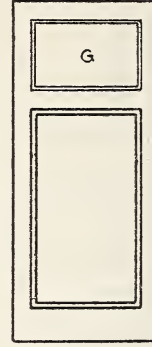


| | | |
|--------------------------|-------------------|--------------------|
| | F28 | F29 |
| Stiles and top rail..... | 4 $\frac{1}{8}$ " | 5 $\frac{3}{8}$ " |
| Lock rail..... | 4 $\frac{1}{2}$ " | 5 $\frac{3}{8}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " | 11 $\frac{3}{8}$ " |

Height from top of lock rail to top of door..... 22" 22 $\frac{3}{4}$ "

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

F128
F129



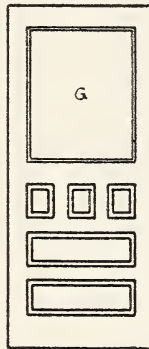
| | | |
|--------------------------|-------------------|--------------------|
| | F128 | F129 |
| Stiles and top rail..... | 4 $\frac{1}{8}$ " | 5 $\frac{3}{8}$ " |
| Lock rail..... | 4 $\frac{1}{2}$ " | 5 $\frac{3}{8}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " | 11 $\frac{3}{8}$ " |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

| | | |
|--------------------|--------------------------|-----------|
| | Size of glass | |
| Size of door | F128 | F129 |
| 2'6" x 6'6"..... | 21 $\frac{3}{8}$ " x 18" | 20" x 18" |
| 2'8" x 6'8"..... | 23 $\frac{3}{8}$ " x 18" | 22" x 18" |
| 2'10" x 6'10"..... | 25 $\frac{3}{8}$ " x 18" | 24" x 18" |
| 3'0" x 7'0"..... | 27 $\frac{3}{8}$ " x 18" | 26" x 18" |

Beads for glass included.

F152



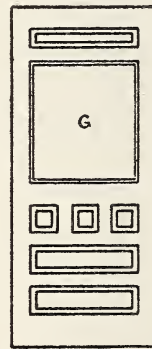
| | |
|-------------------------------------|-------------------|
| Stiles..... | 4 $\frac{1}{8}$ " |
| Top and lock rails..... | 5 $\frac{3}{8}$ " |
| Intermediate rails and muntins..... | 3 $\frac{3}{8}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

| | |
|--------------------|--------------------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 21 $\frac{3}{8}$ " x 32" |
| 2'8" x 6'8"..... | 23 $\frac{3}{8}$ " x 34" |
| 2'10" x 6'10"..... | 25 $\frac{3}{8}$ " x 36" |
| 3'0" x 7'0"..... | 27 $\frac{3}{8}$ " x 38" |

Beads for glass included.

F154



| | |
|-------------------------------------|-------------------|
| Stiles..... | 4 $\frac{1}{8}$ " |
| Top and lock rails..... | 5 $\frac{3}{8}$ " |
| Intermediate rails and muntins..... | 3 $\frac{3}{8}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

| | |
|--------------------|--------------------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 21 $\frac{3}{8}$ " x 24" |
| 2'8" x 6'8"..... | 23 $\frac{3}{8}$ " x 26" |
| 2'10" x 6'10"..... | 25 $\frac{3}{8}$ " x 28" |
| 3'0" x 7'0"..... | 27 $\frac{3}{8}$ " x 30" |

Beads for glass included.

F62



| | |
|--|-------------------|
| Stiles and top rail..... | 4 $\frac{1}{8}$ " |
| Lock rail and muntin..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |
| Height from top of lock rail to top of door..... | 22" |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

F162



| | |
|---------------------------|-------------------|
| Stiles and top rail..... | 4 $\frac{1}{8}$ " |
| Lock rail and muntin..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass |
|--------------------|--------------------------|
| 2'6" x 6'6"..... | 21 $\frac{5}{8}$ " x 18" |
| 2'8" x 6'8"..... | 23 $\frac{5}{8}$ " x 18" |
| 2'10" x 6'10"..... | 25 $\frac{5}{8}$ " x 18" |
| 3'0" x 7'0"..... | 27 $\frac{5}{8}$ " x 18" |

Beads for glass included.

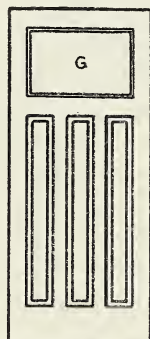
F63



| | |
|--|-------------------|
| Stiles and top rail..... | 4 $\frac{1}{8}$ " |
| Lock rail..... | 4 $\frac{1}{2}$ " |
| Muntins..... | 3 $\frac{1}{4}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |
| Height from top of lock rail to top of door..... | 22" |

3-ply laminated flat panels. Furnished in grades A and B only. Sticking: Standard.

F163

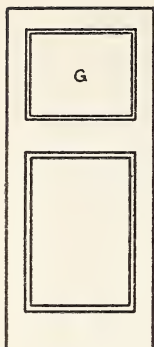


| | |
|--------------------------|-------------------|
| Stiles and top rail..... | 4 $\frac{1}{8}$ " |
| Lock rail..... | 4 $\frac{1}{2}$ " |
| Muntins..... | 3 $\frac{1}{4}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass |
|--------------------|--------------------------|
| 2'6" x 6'6"..... | 21 $\frac{5}{8}$ " x 18" |
| 2'8" x 6'8"..... | 23 $\frac{5}{8}$ " x 18" |
| 2'10" x 6'10"..... | 25 $\frac{5}{8}$ " x 18" |
| 3'0" x 7'0"..... | 27 $\frac{5}{8}$ " x 18" |

Beads for glass included.



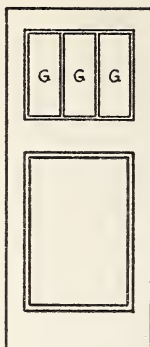
F 110
F 111

| | F110 | F111 |
|------------------|----------------------------------|---------------------------------|
| Stiles..... | 4 ⁹ / ₁₆ " | 5 ³ / ₈ " |
| Top rail..... | 5 ³ / ₈ " | 5 ³ / ₈ " |
| Lock rail..... | 8" | 8" |
| Bottom rail..... | 9 ³ / ₈ " | 9 ³ / ₈ " |

3-ply laminated flat panel. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|--|-----------|
| | F110 | F111 |
| 2'6" x 6'6"..... | 21 ⁵ / ₈ " x 22" | 20" x 22" |
| 2'8" x 6'8"..... | 23 ⁵ / ₈ " x 22" | 22" x 22" |
| 2'10" x 6'10"..... | 25 ⁵ / ₈ " x 22" | 24" x 22" |
| 3'0" x 7'0"..... | 27 ⁵ / ₈ " x 22" | 26" x 22" |

Beads for glass included.



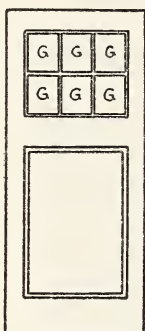
F 310
F 311

| | F310 | F311 |
|------------------|----------------------------------|---------------------------------|
| Stiles..... | 4 ⁹ / ₁₆ " | 5 ³ / ₈ " |
| Top rail..... | 5 ³ / ₈ " | 5 ³ / ₈ " |
| Lock rail..... | 8" | 8" |
| Bottom rail..... | 9 ³ / ₈ " | 9 ³ / ₈ " |

Bars 1/4" between glass. 3-ply laminated flat panel. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|---------------------------------------|---------------|
| | F310 | F311 |
| 2'6" x 6'6"..... | 6 ⁷ / ₈ " x 22" | 6 5/8" x 22" |
| 2'8" x 6'8"..... | 7 1/2" x 22" | 6 3/4" x 22" |
| 2'10" x 6'10"..... | 8 1/4" x 22" | 7 9/16" x 22" |
| 3'0" x 7'0"..... | 8 3/8" x 22" | 8 1/4" x 22" |

Beads for glass included.



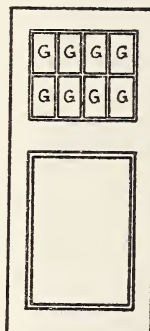
F 610
F 611

| | F610 | F611 |
|------------------|----------------------------------|---------------------------------|
| Stiles..... | 4 ⁹ / ₁₆ " | 5 ³ / ₈ " |
| Top rail..... | 5 ³ / ₈ " | 5 ³ / ₈ " |
| Lock rail..... | 8" | 8" |
| Bottom rail..... | 9 ³ / ₈ " | 9 ³ / ₈ " |

Bars 1/2" between glass. 3-ply laminated flat panel. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|--|--|
| | F610 | F611 |
| 2'6" x 6'6"..... | 6 ⁷ / ₈ " x 10 ³ / ₄ " | 6 5/16" x 10 ³ / ₄ " |
| 2'8" x 6'8"..... | 7 1/2" x 10 ³ / ₄ " | 6 5/16" x 10 ³ / ₄ " |
| 2'10" x 6'10"..... | 8 1/4" x 10 ³ / ₄ " | 7 9/16" x 10 ³ / ₄ " |
| 3'0" x 7'0"..... | 8 5/8" x 10 ³ / ₄ " | 8 1/4" x 10 ³ / ₄ " |

Beads for glass included.



F 810
F 811

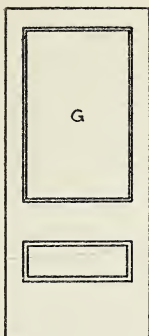
| | F810 | F811 |
|------------------|----------------------------------|---------------------------------|
| Stiles..... | 4 ⁹ / ₁₆ " | 5 ³ / ₈ " |
| Top rail..... | 5 ³ / ₈ " | 5 ³ / ₈ " |
| Lock rail..... | 8" | 8" |
| Bottom rail..... | 9 ³ / ₈ " | 9 ³ / ₈ " |

Bars 1/2" between glass. 3-ply laminated flat panel. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|---|--|
| | F810 | F811 |
| 2'6" x 6'6"..... | 5" x 10 ³ / ₄ " | 4 ⁵ / ₈ " x 10 ³ / ₄ " |
| 2'8" x 6'8"..... | 5 1/2" x 10 ³ / ₄ " | 5 1/8" x 10 ³ / ₄ " |
| 2'10" x 6'10"..... | 6" x 10 ³ / ₄ " | 5 ⁵ / ₈ " x 10 ³ / ₄ " |
| 3'0" x 7'0"..... | 6 1/2" x 10 ³ / ₄ " | 6 1/8" x 10 ³ / ₄ " |

Beads for glass included.

F147



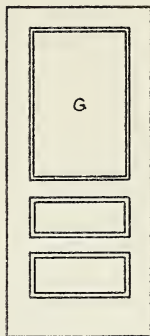
| | |
|---------------------|--------------------|
| Stiles and top rail | 5 $\frac{3}{8}$ " |
| Lock rail | 9 $\frac{3}{8}$ " |
| Bottom rail | 11 $\frac{3}{8}$ " |

3-ply laminated flat panel. Can also be furnished with raised panel, if desired. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass |
|---------------|---------------|
| 2'8" x 6'8" | 22" x 48" |
| 2'10" x 6'10" | 24" x 48" |
| 3'0" x 7'0" | 28" x 50" |

Beads for glass included.

F114



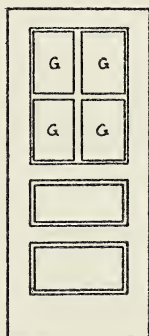
| | |
|---------------------|--------------------|
| Stiles and top rail | 4 $\frac{9}{16}$ " |
| Intermediate rail | 4 $\frac{1}{2}$ " |
| Lock rail | 5" |
| Bottom rail | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| Size of door | Size of glass |
|---------------|--------------------------|
| 2'8" x 6'8" | 21 $\frac{5}{8}$ " x 36" |
| 2'8" x 6'8" | 23 $\frac{5}{8}$ " x 38" |
| 2'10" x 6'10" | 25 $\frac{5}{8}$ " x 40" |
| 3'0" x 7'0" | 27 $\frac{5}{8}$ " x 42" |

Beads for glass included.

F415



| | |
|-----------------------------|--------------------|
| Stiles and top rail | 4 $\frac{9}{16}$ " |
| Lock and intermediate rails | 4 $\frac{1}{2}$ " |
| Bottom rail | 9 $\frac{3}{8}$ " |

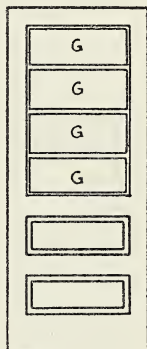
Vertical bar 1 $\frac{1}{16}$ " between glass.
Horizontal bar $\frac{1}{2}$ " between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| Size of door | Size of glass |
|---------------|---------------|
| 2'6" x 6'6" | 10" x 18" |
| 2'8" x 6'8" | 11" x 19" |
| 2'10" x 6'10" | 12" x 20" |
| 3'0" x 7'0" | 13" x 21" |

Beads for glass included.

F415H



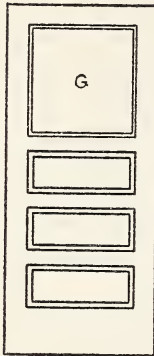
| | |
|-----------------------------|--------------------|
| Stiles and top rail | 9 $\frac{9}{16}$ " |
| Lock and intermediate rails | 4 $\frac{1}{2}$ " |
| Bottom rail | 9 $\frac{3}{8}$ " |

Bars $\frac{1}{4}$ " between glass. 3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass |
|---------------|---|
| 2'6" x 6'6" | 21 $\frac{5}{8}$ " x 8 $\frac{3}{4}$ " |
| 2'8" x 6'8" | 23 $\frac{5}{8}$ " x 9 $\frac{1}{4}$ " |
| 2'10" x 6'10" | 25 $\frac{5}{8}$ " x 9 $\frac{3}{4}$ " |
| 3'0" x 7'0" | 27 $\frac{5}{8}$ " x 10 $\frac{1}{4}$ " |

Beads for glass included.

F 214
F119 (5X PANEL LAYOUT)



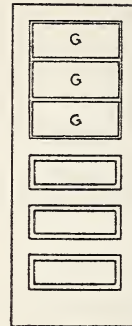
| | |
|----------------------------------|--------------------|
| Stiles and top rail..... | 49 $\frac{1}{8}$ " |
| Lock and intermediate rails..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, C, and 1 $\frac{1}{8}$ " millrun. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|--------------------------|---|
| | F214 | F119 |
| 2'6" x 6'6"..... | 21 $\frac{5}{8}$ " x 24" | 21 $\frac{5}{8}$ " x 23 $\frac{7}{8}$ " |
| 2'8" x 6'8"..... | 23 $\frac{5}{8}$ " x 26" | 23 $\frac{5}{8}$ " x 24 $\frac{5}{8}$ " |
| 2'10" x 6'10"..... | 25 $\frac{5}{8}$ " x 28" | 25 $\frac{5}{8}$ " x 25 $\frac{3}{8}$ " |
| 3'0" x 7'0"..... | 27 $\frac{5}{8}$ " x 30" | 27 $\frac{5}{8}$ " x 26" |

Beads for glass included.

F 214 H



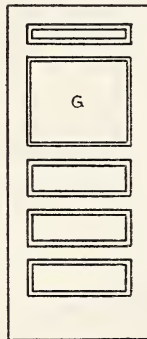
| | |
|----------------------------------|--------------------|
| Stiles and top rail..... | 49 $\frac{1}{8}$ " |
| Lock and intermediate rails..... | 4 $\frac{1}{2}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

Bars $\frac{1}{2}$ " between glass. 3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|--|--|
| | 2'6" x 6'6"..... | 21 $\frac{5}{8}$ " x 7 $\frac{3}{4}$ " |
| 2'8" x 6'8"..... | 23 $\frac{5}{8}$ " x 8 $\frac{3}{8}$ " | |
| 2'10" x 6'10"..... | 25 $\frac{5}{8}$ " x 9" | |
| 3'0" x 7'0"..... | 27 $\frac{5}{8}$ " x 9 $\frac{3}{4}$ " | |

Beads for glass included.

F 117

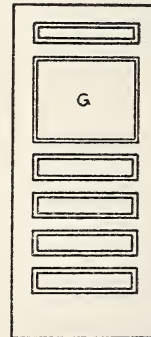


| | |
|-------------------------|--------------------|
| Stiles..... | 49 $\frac{1}{8}$ " |
| Top and lock rails..... | 5 $\frac{3}{8}$ " |
| Intermediate rails..... | 3 $\frac{3}{8}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, C, and 1 $\frac{1}{8}$ " millrun. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|--------------------------|--------------------------|
| | 2'6" x 6'6"..... | 21 $\frac{5}{8}$ " x 24" |
| 2'8" x 6'8"..... | 23 $\frac{5}{8}$ " x 26" | |
| 2'10" x 6'10"..... | 25 $\frac{5}{8}$ " x 28" | |
| 3'0" x 7'0"..... | 27 $\frac{5}{8}$ " x 30" | |

Beads for glass included.

F 117 $\frac{1}{2}$ 

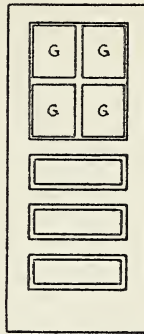
| | |
|-------------------------|--------------------|
| Stiles..... | 49 $\frac{1}{8}$ " |
| Top and lock rails..... | 5 $\frac{3}{8}$ " |
| Intermediate rails..... | 3 $\frac{3}{8}$ " |
| Bottom rail..... | 9 $\frac{3}{8}$ " |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| Size of door | Size of glass | |
|--------------------|--------------------------|--------------------------|
| | 2'6" x 6'6"..... | 21 $\frac{5}{8}$ " x 22" |
| 2'8" x 6'8"..... | 23 $\frac{5}{8}$ " x 24" | |
| 2'10" x 6'10"..... | 25 $\frac{5}{8}$ " x 26" | |
| 3'0" x 7'0"..... | 27 $\frac{5}{8}$ " x 28" | |

Beads for glass included.

F 416



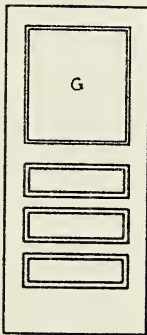
| | |
|-------------------------------------|--------|
| Stiles and top rail..... | 4 1/8" |
| Lock rail..... | 5 3/8" |
| Intermediate rails..... | 4 1/2" |
| Bottom rail..... | 9 3/8" |
| Vertical bar 1 1/16" between glass. | |
| Horizontal bar 1/2" between glass. | |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| | |
|--------------------|---------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 10" x 15" |
| 2'8" x 6'8"..... | 11" x 16" |
| 2'10" x 6'10"..... | 12" x 17" |
| 3'0" x 7'0"..... | 13" x 18" |

Beads for glass included.

F 118



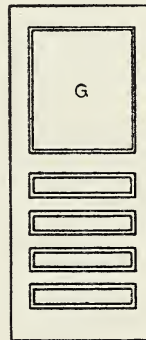
| | |
|-------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 3 3/8" |
| Bottom rail..... | 9 3/8" |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, C, and 1 1/2" millrun. Sticking: Standard.

| | |
|--------------------|---------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 21 3/8" x 32" |
| 2'8" x 6'8"..... | 23 3/8" x 34" |
| 2'10" x 6'10"..... | 25 3/8" x 36" |
| 3'0" x 7'0"..... | 27 3/8" x 38" |

Beads for glass included.

F 118 1/2



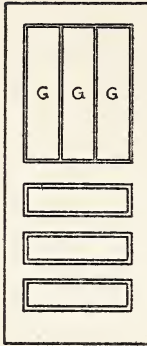
| | |
|-------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 3 3/8" |
| Bottom rail..... | 9 3/8" |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| | |
|--------------------|---------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 21 3/8" x 30" |
| 2'8" x 6'8"..... | 23 3/8" x 32" |
| 2'10" x 6'10"..... | 25 3/8" x 34" |
| 3'0" x 7'0"..... | 27 3/8" x 36" |

Beads for glass included.

F 318



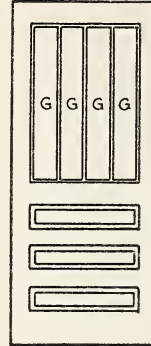
| | |
|-------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 3 3/8" |
| Bottom rail..... | 9 3/8" |

Bars 1/2" between glass. 3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| | |
|--------------------|---------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 6 7/8" x 32" |
| 2'8" x 6'8"..... | 7 1/2" x 34" |
| 2'10" x 6'10"..... | 8 1/4" x 36" |
| 3'0" x 7'0"..... | 8 7/8" x 38" |

Beads for glass included.

F 418



| | |
|-------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 3 3/8" |
| Bottom rail..... | 9 3/8" |

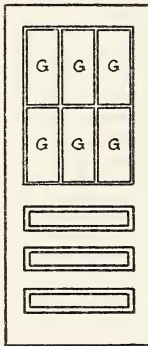
Bars 1/2" between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| | |
|--------------------|---------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 5" x 32" |
| 2'8" x 6'8"..... | 5 1/2" x 34" |
| 2'10" x 6'10"..... | 6" x 36" |
| 3'0" x 7'0"..... | 6 1/2" x 38" |

Beads for glass included.

F 618



| | |
|-------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 3 3/8" |
| Bottom rail..... | 9 3/8" |

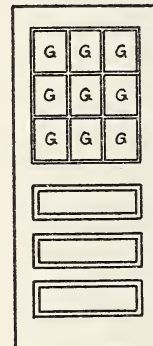
Bars 1/2" between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| | |
|--------------------|------------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 6 7/8" x 15 3/4" |
| 2'8" x 6'8"..... | 7 1/2" x 16 3/4" |
| 2'10" x 6'10"..... | 8 1/4" x 17 3/4" |
| 3'0" x 7'0"..... | 8 7/8" x 18 3/4" |

Beads for glass included.

F 918



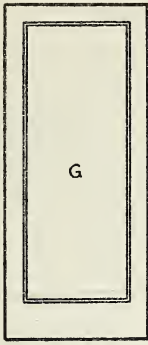
| | |
|-------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 3 3/8" |
| Bottom rail..... | 9 3/8" |

Bars 1/2" between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in grades A, B, and C. Sticking: Standard.

| | |
|--------------------|------------------|
| Size of door | Size of glass |
| 2'6" x 6'6"..... | 6 7/8" x 10 3/4" |
| 2'8" x 6'8"..... | 7 1/2" x 11" |
| 2'10" x 6'10"..... | 8 1/4" x 11 3/4" |
| 3'0" x 7'0"..... | 8 7/8" x 12 3/4" |

Beads for glass included.



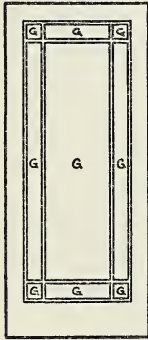
F35
F36
F37

| | F35 | F36 | F37 |
|------------------|--------|---------|---------|
| Stiles..... | 4 1/4" | 5 3/8" | 5 3/8" |
| Top rail..... | 4 1/4" | 5 3/8" | 6 3/8" |
| Bottom rail..... | 9 3/8" | 11 3/8" | 18 3/8" |

Furnished in grades A and B only. Sticking: Standard.

| Size of door | Sizes of glass | | |
|-----------------|-----------------|---------|---------|
| | F35 | F36 | F37 |
| 2'6"x6'6".... | 21 5/8"x64 1/4" | 20"x62" | 20"x54" |
| 2'8"x6'8".... | 23 3/8"x66 1/4" | 22"x64" | 22"x56" |
| 2'10"x6'10".... | 25 5/8"x68 1/4" | 24"x66" | 24"x58" |
| 3'0"x7'0".... | 27 3/8"x70 1/4" | 26"x68" | 26"x60" |

Beads for glass included.



F 935 M
F 936 M
F 937 M

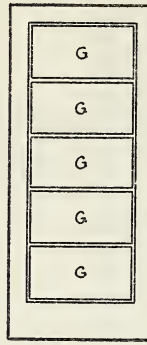
| | F935M | F936M | F937M |
|------------------|--------|---------|---------|
| Stiles..... | 4 1/4" | 5 3/8" | 5 3/8" |
| Top rail..... | 4 1/4" | 5 3/8" | 6 3/8" |
| Bottom rail..... | 9 3/8" | 11 3/8" | 18 3/8" |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Sizes of glass (in inches) | | |
|-----------------|----------------------------|----------|----------|
| | F935M | | |
| 2'6"x6'6".... | 5x5 | 5x53 3/4 | 5x10 1/2 |
| 2'8"x6'8".... | 5x5 | 5x55 3/4 | 5x12 1/2 |
| 2'10"x6'10".... | 5x5 | 5x57 3/4 | 5x14 1/2 |
| 3'0"x7'0".... | 5x5 | 5x59 3/4 | 5x16 1/2 |

| Size of door | Sizes of glass | | |
|-----------------|----------------|----------|---------------|
| | F936M | F937M | F837 |
| 2'6"x6'6".... | 5x5 | 5x50 3/4 | 8 3/4 x50 7/8 |
| 2'8"x6'8".... | 5x5 | 5x52 3/4 | 5x10 7/8 |
| 2'10"x6'10".... | 5x5 | 5x54 3/4 | 5x12 3/4 |
| 3'0"x7'0".... | 5x5 | 5x56 3/4 | 5x14 3/4 |

Beads for glass included.



F535
F536
F537

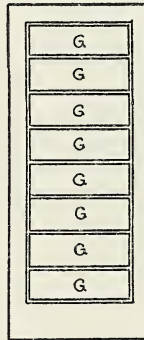
| | F535 | F536 | F537 |
|------------------|--------|---------|---------|
| Stiles..... | 4 1/4" | 5 3/8" | 5 3/8" |
| Top rail..... | 4 1/4" | 5 3/8" | 6 3/8" |
| Bottom rail..... | 9 3/8" | 11 3/8" | 18 3/8" |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Sizes of glass | |
|-----------------|-----------------|-------------|
| | F535 | F536 |
| 2'6"x6'6".... | 21 5/8"x12 1/2" | 20"x11 5/8" |
| 2'8"x6'8".... | 23 3/8"x12 3/4" | 22"x12 1/4" |
| 2'10"x6'10".... | 25 5/8"x13 1/4" | 24"x12 3/4" |
| 3'0"x7'0".... | 27 3/8"x13 3/4" | 26"x13 1/4" |

| Size of door | Sizes of glass | |
|-----------------|----------------|-------------|
| | F537 | F837 |
| 2'6"x6'6".... | 20"x10 5/8" | 20"x10 5/8" |
| 2'8"x6'8".... | 22"x10 3/4" | 22"x10 3/4" |
| 2'10"x6'10".... | 24"x11 1/4" | 24"x11 1/4" |
| 3'0"x7'0".... | 26"x11 3/4" | 26"x11 3/4" |

Beads for glass included.



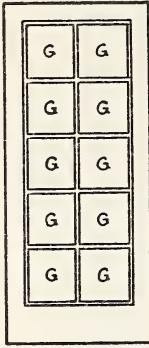
F 835
F 836
F 837

| | F835 | F836 | F837 |
|------------------|--------|---------|---------|
| Stiles..... | 4 1/4" | 5 3/8" | 5 3/8" |
| Top rail..... | 4 1/4" | 5 3/8" | 6 3/8" |
| Bottom rail..... | 9 3/8" | 11 3/8" | 18 3/8" |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

| Size of door | Sizes of glass | |
|-----------------|----------------|------------|
| | F835 | F836 |
| 2'6"x6'6".... | 21 3/8"x7 5/8" | 20"x7 1/4" |
| 2'8"x6'8".... | 23 3/8"x7 7/8" | 22"x7 1/2" |
| 2'10"x6'10".... | 25 3/8"x8 1/8" | 24"x7 3/4" |
| 3'0"x7'0".... | 27 3/8"x8 3/8" | 26"x8" |

Beads for glass included.



F 1035
F 1036
F 1037

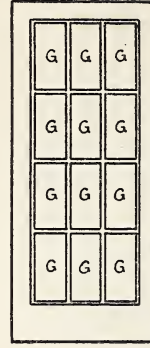
| | F1035 | F1036 | F1037 |
|------------------|----------------------------------|-----------------------------------|-----------------------------------|
| Stiles..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 5 ³ / ₁₆ " |
| Top rail..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 6 ³ / ₁₆ " |
| Bottom rail..... | 9 ³ / ₁₆ " | 11 ³ / ₁₆ " | 18 ³ / ₁₆ " |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|---|--|
| | F1035 | |
| 2'6" x 6'6"..... | 10 ¹ / ₂ x 12 ¹ / ₂ | |
| 2'8" x 6'8"..... | 11 ¹ / ₂ x 12 ¹ / ₂ | |
| 2'10" x 6'10"..... | 12 ¹ / ₂ x 13 ¹ / ₄ | |
| 3'0" x 7'0"..... | 13 ¹ / ₂ x 13 ³ / ₄ | |

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|---|---|
| | F1036 | F1037 |
| 2'6" x 6'6"..... | 9 ¹ / ₄ " x 11 ³ / ₄ " | 9 ¹ / ₄ " x 10 ³ / ₄ " |
| 2'8" x 6'8"..... | 10 ¹ / ₄ " x 12 ³ / ₄ " | 10 ¹ / ₄ " x 10 ³ / ₄ " |
| 2'10" x 6'10"..... | 11 ¹ / ₄ " x 12 ³ / ₄ " | 11 ¹ / ₄ " x 11 ³ / ₄ " |
| 3'0" x 7'0"..... | 12 ¹ / ₄ " x 13 ³ / ₄ " | 12 ¹ / ₄ " x 11 ³ / ₄ " |

Beads for glass included.



F 1235
F 1236
F 1237

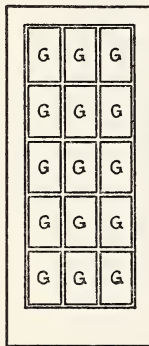
| | F1235 | F1236 | F1237 |
|------------------|----------------------------------|-----------------------------------|-----------------------------------|
| Stiles..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 5 ³ / ₁₆ " |
| Top rail..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 6 ³ / ₁₆ " |
| Bottom rail..... | 9 ³ / ₁₆ " | 11 ³ / ₁₆ " | 18 ³ / ₁₆ " |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|--|--|
| | F1235 | |
| 2'6" x 6'6"..... | 6 ³ / ₄ " x 15 ¹ / ₄ " | |
| 2'8" x 6'8"..... | 7 ¹ / ₄ " x 16 ¹ / ₄ " | |
| 2'10" x 6'10"..... | 8 ¹ / ₂ " x 16 ³ / ₄ " | |
| 3'0" x 7'0"..... | 8 ³ / ₄ " x 17 ¹ / ₄ " | |

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|--|--|
| | F1236 | F1237 |
| 2'6" x 6'6"..... | 6 ⁵ / ₁₆ " x 15 ¹ / ₁₆ " | 6 ⁵ / ₁₆ " x 13 ¹ / ₁₆ " |
| 2'8" x 6'8"..... | 6 ¹ / ₂ " x 15 ¹ / ₁₆ " | 6 ¹ / ₂ " x 13 ¹ / ₁₆ " |
| 2'10" x 6'10"..... | 7 ¹ / ₁₆ " x 16 ¹ / ₁₆ " | 7 ¹ / ₁₆ " x 14 ¹ / ₁₆ " |
| 3'0" x 7'0"..... | 8 ¹ / ₄ " x 16 ¹ / ₁₆ " | 8 ¹ / ₄ " x 14 ¹ / ₁₆ " |

Beads for glass included.



F 1535
F 1536
F 1537

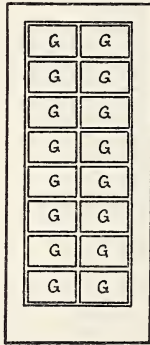
| | F1535 | F1536 | F1537 |
|------------------|----------------------------------|-----------------------------------|-----------------------------------|
| Stiles..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 5 ³ / ₁₆ " |
| Top rail..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 6 ³ / ₁₆ " |
| Bottom rail..... | 9 ³ / ₁₆ " | 11 ³ / ₁₆ " | 18 ³ / ₁₆ " |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|--|--|
| | F1535 | |
| 2'6" x 6'6"..... | 6 ¹ / ₂ " x 12 ¹ / ₂ | |
| 2'8" x 6'8"..... | 7 ¹ / ₄ " x 12 ¹ / ₂ | |
| 2'10" x 6'10"..... | 8 ¹ / ₂ " x 13 ¹ / ₄ | |
| 3'0" x 7'0"..... | 8 ³ / ₄ " x 13 ³ / ₄ | |

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|--|--|
| | F1536 | F1537 |
| 2'6" x 6'6"..... | 6 ⁵ / ₁₆ " x 11 ³ / ₁₆ " | 6 ⁵ / ₁₆ " x 10 ³ / ₁₆ " |
| 2'8" x 6'8"..... | 6 ¹ / ₂ " x 12 ³ / ₁₆ " | 6 ¹ / ₂ " x 10 ³ / ₁₆ " |
| 2'10" x 6'10"..... | 7 ¹ / ₁₆ " x 12 ³ / ₁₆ " | 7 ¹ / ₁₆ " x 11 ³ / ₁₆ " |
| 3'0" x 7'0"..... | 8 ¹ / ₄ " x 13 ³ / ₁₆ " | 8 ¹ / ₄ " x 11 ³ / ₁₆ " |

Beads for glass included.



F 1635
F 1636
F 1637

| | F1635 | F1636 | F1637 |
|------------------|----------------------------------|-----------------------------------|-----------------------------------|
| Stiles..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 5 ³ / ₁₆ " |
| Top rail..... | 4 ³ / ₁₆ " | 5 ³ / ₁₆ " | 6 ³ / ₁₆ " |
| Bottom rail..... | 9 ³ / ₁₆ " | 11 ³ / ₁₆ " | 18 ³ / ₁₆ " |

Bars 1/2" between glass. Furnished in grades A and B only. Sticking: Standard.

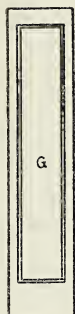
| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|--|--|
| | F1635 | |
| 2'6" x 6'6"..... | 10 ¹ / ₂ x 7 ⁵ / ₈ | |
| 2'8" x 6'8"..... | 11 ¹ / ₂ x 7 ⁵ / ₈ | |
| 2'10" x 6'10"..... | 12 ¹ / ₂ x 8 ⁵ / ₈ | |
| 3'0" x 7'0"..... | 13 ¹ / ₂ x 8 ⁵ / ₈ | |

| Size of door (same for 3 designs) | Sizes of glass (in inches) | |
|-----------------------------------|--|--|
| | F1636 | F1637 |
| 2'6" x 6'6"..... | 9 ¹ / ₄ " x 7 ¹ / ₄ " | 9 ¹ / ₄ " x 6 ¹ / ₄ " |
| 2'8" x 6'8"..... | 10 ¹ / ₄ " x 7 ¹ / ₂ " | 10 ¹ / ₄ " x 6 ¹ / ₂ " |
| 2'10" x 6'10"..... | 11 ¹ / ₄ " x 7 ³ / ₄ " | 11 ¹ / ₄ " x 6 ³ / ₄ " |
| 3'0" x 7'0"..... | 12 ¹ / ₄ " x 8" | 12 ¹ / ₄ " x 7" |

Beads for glass included.

SIDELIGHTS

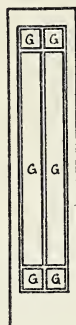
F 035



F 0535



F 0635M



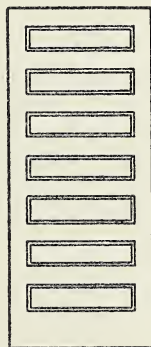
| | |
|------------------|---------------------|
| Stiles..... | Not over 2½" wide. |
| Top rail..... | Not over 6½" wide. |
| Bottom rail..... | Not over 18½" wide. |

Top and bottom rails made same width as in doors with which they are used. Bars ½" between glass. Furnished in grade A only. Sticking: Standard.

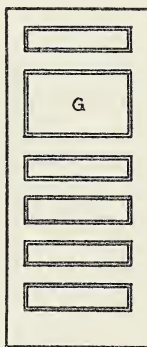
Beads for glass included.

STORM DOORS

F 57



F 507



| | |
|--------------------------|-----|
| Stiles and top rail..... | 4¾" |
| Intermediate rails..... | 4½" |
| Bottom rail..... | 9¾" |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in 1½" millrun grade only. Sticking: Standard.

| | |
|--------------------------|-----|
| Stiles and top rail..... | 4¾" |
| Intermediate rails..... | 4½" |
| Bottom rail..... | 9¾" |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Furnished in 1½" millrun grade only. Sticking: Standard.

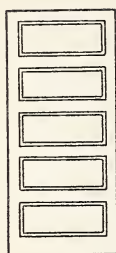
| Size of door | Size of glass |
|---------------------|---------------|
| 2'6½" x 6'7"..... | 22" x 16½" |
| 2'8½" x 6'9"..... | 24" x 16¾" |
| 2'10½" x 6'11"..... | 26" x 17½" |
| 3'½" x 7'1"..... | 28" x 18½" |

Beads for glass included.

Storm doors made ½" over in width and 1" over in length than corresponding standard size openings.

CUPBOARD DOORS

F05



Stiles, top and cross rails..... 2 $\frac{3}{4}$ "
Bottom rail..... 4 $\frac{1}{2}$ "

F020



Stiles and top rail..... 2 $\frac{3}{4}$ "
Bottom rail..... 4 $\frac{1}{2}$ "

F082



Stiles and top rail..... 2 $\frac{3}{4}$ "
Cross rail..... 3 $\frac{1}{2}$ "
Bottom rail..... 4 $\frac{1}{2}$ "

F05 doors are made as below:

1'10" to 2'2"..... 2 cross panel.
2'4" to 3'0"..... 3 cross panel.
3'2" to 3'10"..... 4 cross panel.
4'0" to 5'6"..... 5 cross panel.

3-ply laminated flat panels.

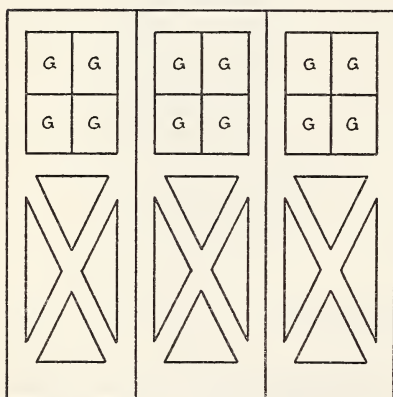
F05 can be furnished with raised panels.

Cupboard doors made in *B* and better grade only.

Sticking: Standard

GARAGE DOORS

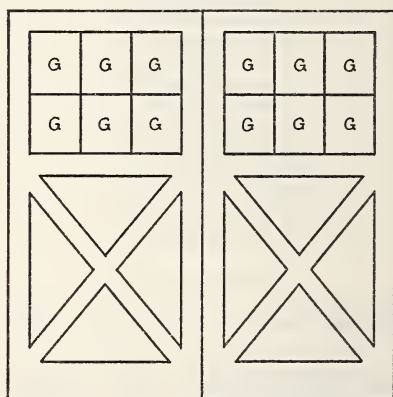
F491



Stiles..... 4 $\frac{9}{16}$ "
Top and lock rails..... 5 $\frac{3}{8}$ "
Bottom rail..... 9 $\frac{3}{8}$ "
Vertical bars $\frac{5}{8}$ " between glass.
Horizontal bars 1" between glass.

Ceiling panels. Cross braces screwed on.
Sticking: Standard. Beads for glass included.

F691

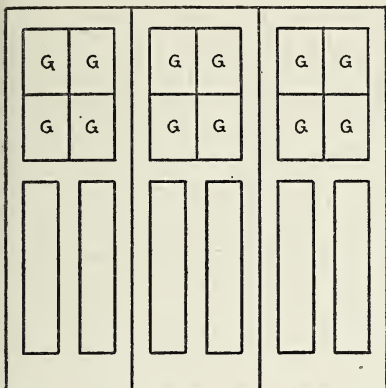


Stiles, top and lock rails..... 5 $\frac{3}{8}$ "
Bottom rail..... 9 $\frac{3}{8}$ "
Vertical and horizontal bars 1" between glass.

Ceiling panels. Cross braces screwed on.
Sticking: Standard. Beads for glass included.

For standard glass sizes of garage doors, see page 28.

F493

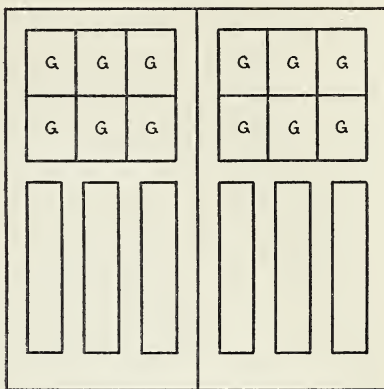


| | |
|------------------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Muntin..... | 5 3/8" |
| Bottom rail..... | 9 3/8" |
| Vertical bars, 5/8" between glass. | |
| Horizontal bars, 1" between glass. | |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired.
Sticking: Standard.

Beads for glass included.

F693



| | |
|---|--------|
| Stiles, top and lock rails..... | 5 3/8" |
| Muntins..... | 5 3/8" |
| Bottom rail..... | 9 3/8" |
| Vertical and horizontal bars, 1" between glass. | |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired.
Sticking: Standard.

Beads for glass included.

F495

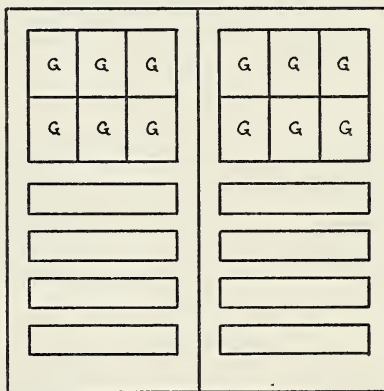


| | |
|------------------------------------|--------|
| Stiles..... | 4 1/8" |
| Top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 4 1/2" |
| Bottom rail..... | 9 3/8" |
| Vertical bars, 5/8" between glass. | |
| Horizontal bars, 1" between glass. | |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired.
Sticking: Standard.

Beads for glass included.

F695

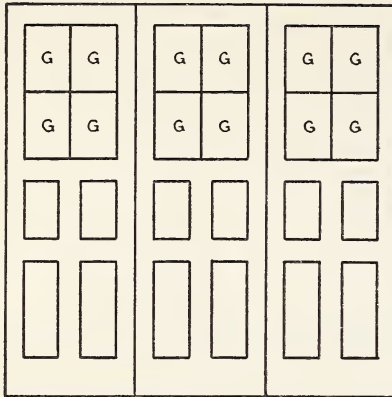


| | |
|---|--------|
| Stiles, top and lock rails..... | 5 3/8" |
| Intermediate rails..... | 4 1/2" |
| Bottom rail..... | 9 3/8" |
| Vertical and horizontal bars, 1" between glass. | |

3-ply laminated flat panels. Can also be furnished with raised panels, if desired.
Sticking: Standard.

Beads for glass included.

F496

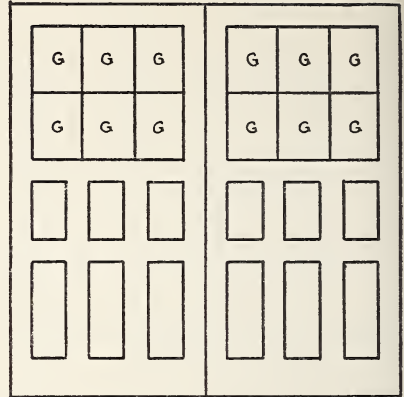


Stiles..... 4 1/4"
 Top and lock rails..... 5 3/8"
 Intermediate rail and muntins..... 5 3/8"
 Bottom rail..... 9 3/8"
 Height of top panels 9 3/8", shoulder to shoulder.
 Vertical bars 5/8" between glass.
 Horizontal bars 1" between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Sticking: Standard.

Beads for glass included.

F696



Stiles, top and lock rails..... 5 3/8"
 Intermediate rail and muntins..... 5 3/8"
 Bottom rail..... 9 3/8"
 Height of top panels 9 3/8", shoulder to shoulder.
 Vertical and horizontal bars 1" between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Sticking: Standard.

Beads for glass included.

STANDARD GLASS OPENINGS
 FOR STANDARD GARAGE
 DOOR DESIGNS SHOWN
 ABOVE

SETS

4 lights per door

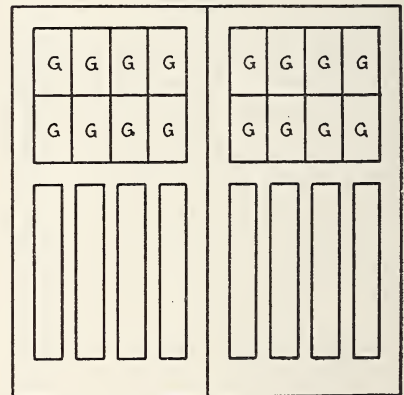
| Size of door | Size of glass |
|--------------|---------------|
| 2'0" x 7'6" | 9 1/2" x 16" |
| 2'0" x 8'0" | 9 1/2" x 16" |
| 2'6" x 7'0" | 10 1/2" x 13" |
| 2'6" x 7'6" | 10 1/2" x 16" |
| 2'6" x 8'0" | 10 1/2" x 16" |
| 2'8" x 7'0" | 11 1/2" x 13" |
| 2'8" x 7'6" | 11 1/2" x 16" |
| 2'8" x 8'0" | 11 1/2" x 16" |

PAIRS

6 lights per door

| Size of door | Size of glass |
|--------------|---------------|
| 3'6" x 7'0" | 10" x 13" |
| 3'6" x 7'6" | 10" x 16" |
| 3'6" x 8'0" | 10" x 16" |
| 3'9" x 7'0" | 11" x 13" |
| 3'9" x 7'6" | 11" x 16" |
| 3'9" x 8'0" | 11" x 16" |
| 4'0" x 7'0" | 12" x 13" |
| 4'0" x 7'6" | 12" x 16" |
| 4'0" x 8'0" | 12" x 16" |

F894



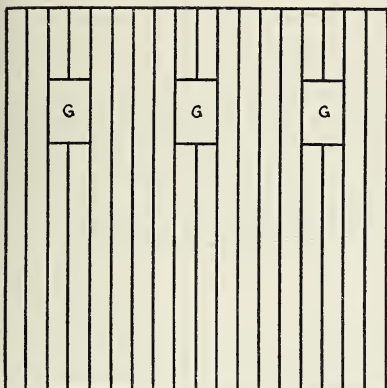
Stiles, top and lock rails..... 5 3/8"
 Muntins..... 3 1/4"
 Bottom rail..... 9 3/8"
 Vertical bars 5/8" between glass.
 Horizontal bars 1" between glass.

3-ply laminated flat panels. Can also be furnished with raised panels, if desired. Sticking: Standard.

| Size of door | Size of glass |
|---------------------------|---------------|
| 3'6" x 7'0" | 7 1/2" x 13" |
| 3'6" x 7'6" & 3'6" x 8'0" | 7 1/2" x 16" |
| 3'9" x 7'0" | 8 3/4" x 13" |
| 3'9" x 7'6" & 3'9" x 8'0" | 8 3/4" x 16" |
| 4'0" x 7'0" | 9" x 13" |
| 4'0" x 7'6" & 4'0" x 8'0" | 9" x 16" |

Beads for glass included.

F190



V.G. flush garage door in sets, with standard glass openings, as shown, or without glass openings (blank).

Each side of each door with 6 batts ("V" ceiling strips) wide, 5 "V" grooves.

Stiles full thickness of door with intervening ceiling strips glued and nailed to core.

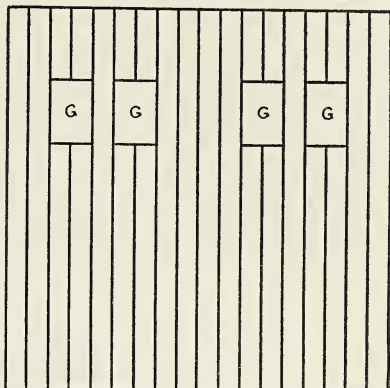
Sets of 3, standard width of each door 2'8", glass size 10 $\frac{5}{8}$ "x16", beads tacked in.

One light per door, standard, placed 18" from top of door.

Metal bars or leaded glass recommended for divided light effect, if desired.

Made in 1 $\frac{3}{4}$ " thickness only.

F290



V.G. flush garage door in pairs, with standard glass openings, as shown, or without glass openings (blank).

Each side of each door with 9 batts ("V" ceiling strips) wide, 8 "V" grooves.

Stiles full thickness of door with intervening ceiling strips glued and nailed to core.

Standard width of each door in pairs, 4'0", glass size 10 $\frac{5}{8}$ "x16", beads tacked in.

Two lights per door, standard, placed 18" from top of door.

Metal bars or leaded glass recommended for divided light effect, if desired.

Made in 1 $\frac{3}{4}$ " thickness only.

GRADE MARKING

37. The following sets forth the grade marking rules adopted by the Fir Door Institute to preserve the high standards of quality herein recorded and to insure distributors and ultimate consumers receiving the proper grade of fir door for their specific needs:

38. All fir doors guaranteed to conform to the commercial standard grading rules shall be marked or branded with the letters "FDP" followed by the numerals designating the particular manufacturer. (The numerals 00 are used only for illustration.)

38 (a). All fir doors of *A* grade shall be stamped or branded

A stamp consisting of the word "GRADE" on the left, a large letter "A" in the center, and "F.D.I.00" on the right, all arranged in a semi-circular arc.

38 (b). All fir doors of *B* grade shall be stamped or branded

A stamp consisting of the word "GRADE" on the left, a large letter "B" in the center, and "F.D.I.00" on the right, all arranged in a semi-circular arc.

38 (c). All fir doors of *C* grade shall be stamped or branded

A stamp consisting of the word "GRADE" on the left, a large letter "C" in the center, and "F.D.I.00" on the right, all arranged in a semi-circular arc.

38 (d). All fir doors of "*Millrun*" grade shall be stamped or branded

A stamp consisting of the word "GRADE" on the left, the letters "MR" in the center, and "F.D.I.00" on the right, all arranged in a semi-circular arc.

EFFECTIVE DATE

The standard became effective for new production on June 30, 1938.

STANDING COMMITTEE

The following comprises the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. 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:

A. L. MORISETTE (chairman), Clear Fir Lumber Co., Tacoma, Wash.
HENRY L. MERTZ, Buffelen Lumber & Mfg. Co., Tacoma, Wash.
A. C. ERICSON, M. & M. Woodworking Co., Portland, Oreg.
RALPH BRINDLEY, Wheeler Osgood Sales Corporation, Tacoma, Wash.

Distributors:

C. F. KNECHT, W. P. Fuller & Co., Tacoma, Wash.
FRED TIBBETTS, Brockway-Smith-Haigh-Lovell Co., Boston, Mass.
LIONEL RAY, Cole Manufacturing Co., Memphis, Tenn.
DON A. CAMPBELL, Bonner Campbell Co., Lebanon, Ky. Representing National Retail Lumber Dealers' Association.
GEORGE LAPOINTE, O. & W. Lumber Co., Menominee, Wis.

Users:

H. P. VERMILYA, Technical Division, Federal Housing Administration, Washington, D. C.
THEODORE IRVING COE, The American Institute of Architects, The Octagon, 1741 New York Avenue, Washington, D. C.
NELSON J. MORRISON, Room 228, Perkins Bldg., Tacoma, Wash. Representing The American Institute of Architects.

HISTORY

On January 25, 1938, the Fir Door Institute requested the cooperation of the Division of Trade Standards in bringing together all interested parties for the development and establishment of standards for stock fir doors. A draft of the preliminary standard was sent on March 11, 1938, to a comprehensive list of those interested in the production, distribution, sale, and use of this commodity. On April 4, 1938, a general conference was held at Tacoma, Wash., for the public discussion of the proposed standard. Some modifications were made and the conference passed a unanimous resolution that the standard, as modified, be circulated for public acceptance as the commercial standard of the industry. This was done on April 28, 1938. Following satisfactory acceptance and in the absence of active opposition, the establishment of the standard was announced on June 30, 1938.

ACCEPTANCE OF COMMERCIAL STANDARD

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 CS73-38 as our standard of practice in the

Production ¹ Distribution ¹ Use ¹
of old growth Douglas fir standard stock doors.

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.

Signature of individual officer_____

(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer_____

Company_____

(Fill in exactly as it should be listed in pamphlet)

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 the industry. 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 industry as a whole, their provisions through usage soon become 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 branches of the industry 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 companies representing a satisfactory majority of production, the success of the project is announced. If, however, in the opinion of the standing committee of the industry 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 these grading specifications as their standard of practice in the production, distribution, and use of Douglas fir stock doors. 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 to conform with the requirements of this standard. Therefore, specific evidence of quality certification should be obtained where required.

ASSOCIATIONS

Associated General Contractors of America, Inc., The, Washington, D. C.
 Fir Door Institute, Tacoma, Wash.
 Middle Atlantic Lumbermens Association, Inc., Philadelphia, Pa.
 New York Lumber Trade Association, Inc., New York, N. Y.
 North West Woodwork Association, St. Paul, Minn.
 Ohio Association of Retail Lumber Dealers, The, Xenia, Ohio.
 Tennessee Lumber, Millwork & Supply Dealers Association, Johnson City, Tenn.
 West Coast Lumbermen's Association, Seattle, Wash. (In principle.)

FIRMS

Addison-Rudesal Co., Atlanta, Ga.
 Allen Lumber Co., Ellwood, Philadelphia, Pa.
 Altfillisch, Charles, Decorah, Iowa.
 Anderson Lumber Co., Ogden, Utah.
 Andrews Lumber Co., C. E., New Bethlehem, Pa.
 Arizona Sash, Door & Glass Co., Phoenix, Ariz.
 Arkmo Lumber Co., The, Little Rock, Ark.
 Augusta Lumber Co., Augusta, Maine.
 Badger Sash & Door Co., Milwaukee, Wis.
 Ballard, William F. R., New York, N. Y.
 Baltimore Lumber Co., Baltimore, Md.
 Baton Rouge Sash & Door Works, Inc., Baton Rouge, La.
 Beasley & Sons Co., Nashville, Tenn.
 Bell Manufacturing Co., Inc., C. C., West Monroe, La.
 Bennett Bailey Lumber Co., Minneapolis, Minn.
 Big Jo Lumber Co., The (A corporation), Santa Fe, N. Mex.
 Binswanger & Co., Inc., Richmond, Va.

Blackburn, Inc., Robert, Milwaukee, Wis.
 Bloedel Donovan Lumber Mills, Bellingham, Wash.
 Bolcom Canal Lumber Co., Seattle, Wash. (In principle.)
 Brain Lumber Co., The, Springfield, Ohio.
 Brookville Lumber Co., Brookville, Ind.
 Bruce Co., E. L., Memphis, Tenn. (In principle.)
 Buffalo Plywood Corporation, Buffalo, N. Y.
 Buffelen Lumber & Manufacturing Co., Tacoma, Wash.
 Builders & Manufacturers Supply Co., St. Marys, Pa.
 Building Service, Inc., Great Falls, Mont.
 Building Supplies Corporation, Norfolk, Va.
 Burritt Co., The A. W., Bridgeport, Conn.
 Byron Sash & Door Co., Louisville, Ky.
 California Builders Supply Co., Oakland, Calif.
 California Door Co., The, Los Angeles, Calif.
 Camp Plywood Co., Inc., The E. W., Indianapolis, Ind.
 Carlow Co., Los Angeles, Calif.
 Carroll Lumber Co., Inc., The, Alexandria, La.
 Central Door & Plywood Corporation, Portland, Oreg.
 Charlottesville Lumber Co., Inc., Charlottesville, Va.
 Clear Fir Lumber Co., Tacoma, Wash.
 Clem Lumber Co., Dallas, Tex.
 Coast Sash & Door Co., Tacoma, Wash.
 Combs Lumber Co., Lexington, Ky.
 Coolbaugh & Son Co., C. C., Gloucester City, N. J.
 Coolidge, Shepley, Bulfinch & Abbott, Boston, Mass.
 Corddry Co., The, Snow Hill, Md.
 Cross, Austin & Ireland Lumber Co., Brooklyn, N. Y.

- Crowell & Lancaster, Bangor, Maine.
 Cumberland Sash & Door Co., Cumberland, Md.
 Davidson Sash & Door Co., Inc., Lake Charles, La.
 Davis Hardwood Co., San Francisco, Calif.
 Davis Millwork Co., Forty Fort, Pa.
 Davis Plywood Corporation, The, Cleveland, Ohio, and other cities.
 Dershimer Lumber Co., P. W., Pittston, Pa.
 Dibble Lumber Co., The S. B., North Adams, Mass.
 Dishrow & Co., Cheyenne, Wyo.
 District of Columbia, Government of the, Washington, D. C. (In principle.)
 Doddington Corporation, The, Columbus, Ohio.
 Donlin-Johnson Co., St. Cloud, Minn.
 Dykes Lumber Co., New York, N. Y.
 Elliott Bay Mill Co., Seattle, Wash.
 Emporia Sash & Door Co., Emporia, Va.
 Estes Lumber Co., Birmingham, Ala.
 Fink & Schindler Co., The, San Francisco, Calif.
 Fischer Lime & Cement Co., Memphis, Tenn.
 Fish & Hunter Co., The, Rapid City, S. Dak.
 Flint Sash & Door Co., Inc., Flint, Mich.
 Fort Wayne Builders Supply Co., Fort Wayne, Ind.
 Fort Wayne Lumber Co., Fort Wayne, Ind.
 Foster & Co., Inc., James P., Baltimore, Md.
 Foster Lumber Co., R. S., Indianapolis, Ind.
 Frazier & Raftery, Chicago, Ill. (In principle.)
 Frederick Bros., Inc., Pottstown, Pa.
 Frey Planing Mill Co., The, Louisville, Ky.
 Furer, Wm. C., Honolulu, Hawaii.
 Gebhardt-Morrow Lumber & Supply Co., Alpena, Mich.
 General Millwork Corporation, Utica, N. Y.
 General Paint Corporation, Spokane, Wash.
 Ginsberg & Sons, Inc., D., Corona, N. Y.
 Goshen Sash & Door Co., Goshen, Ind.
 Gourley & Co., John, Highland Park, Ill.
 Grater-Bodey Co., Norristown, Pa.
 Great Lakes Sash & Door Co., The, Cleveland, Ohio.
 Gregg & Son, Nashua, N. H.
 Griffin Manufacturing Co., A. T., Goldsboro, N. C.
 Haley Bros., Santa Monica, Calif.
 Harbor Plywood Corporation, Hoquiam, Wash.
 Hartung & Hansen, Inc., Seattle, Wash.
 Hawkins Lumber & Warehouse Co., Boston, Mass.
 Houston, Better Business Bureau of, Houston, Tex. (In principle.)
 Hudson, Jr., Flynn E., Auburn, Ala.
 Hurd Lumber Co., Detroit, Mich.
 Illinois Valley Manufacturing Co., Peru, Ill.
 Independent Lumber Co., The, Grand Junction, Colo.
 Interior Woodwork Co., Milwaukee, Wis.
 Interstate Lumber & Supply Co., The, Belpre, Ohio.
 Iron City Sash & Door Co., Pittsburgh, Pa.
 Iroquois Millwork Corporation, Albany, N. Y.
 Jackson N. E. Sash & Door Co., Waltham, Mass.
 Jefferson Wood Products Co., Jefferson, Wis.
 Johnson & Wimsatt, Inc., Washington, D. C.
 Kellogg & Sons Co., Charles C., Utica, N. Y.
 Keystone Lumber Co., Pittsburgh, Pa.
 Koehl & Son, Inc., John W., Los Angeles, Calif.
 Kullberg Manufacturing Co., Minneapolis, Minn. (In principle.)
 Larrick, Tom, Lawrence, Kans.
 Leuckel & Co., A. K., Trenton, N. J.
 Lewis Lumber Co., Asbury Park, N. J.
 Lisbon Lumber Co., Lisbon, Ohio.
 Loetscher & Burch Manufacturing Co., Des Moines, Iowa.
 Lumber Dealers Supply Co., Denver, Colo.
 Lumber & Millwork Co. of Philadelphia, The, Philadelphia, Pa.
 Lumbermen's Door & Trim Co., The, East Cleveland, Ohio.
 Lumbermen's Millwork & Supply Co., Ardmore, Okla.
 Lyman-Hawkins Lumber Co., The, Akron, Ohio.
 M & M Wood Working Co., Portland, Oreg.
 MacArthur Planing Mill, Long Beach, Calif.
 Madary's Planing Mill, Fresno, Calif.
 Madden Lumber Co., Troy, N. Y.
 Mahlstedt Materials, Inc., New Rochelle, N. Y.
 Mahoney Sash & Door Co., The, Canton, Ohio.
 Maris Plywood Corporation, San Francisco, Calif.
 Markland Contracting Co., M. B., Atlantic City, N. J.
 Martin, Raymond J., New York, N. Y.
 McCleary Timber Co., Henry, McCleary, Wash.
 McGoldrick Lumber Co., Spokane, Wash.
 McGowin Lyons Hardware and Supply Co., Mobile, Ala.
 McPhillips Manufacturing Co., Mobile, Ala.

- Michigan Wholesalers, Inc., Jackson, Mich.
 Miller Bros., Inc., Lebanon, Pa.
 Monarch Door & Manufacturing Co., Tacoma, Wash.
 Moore & Co., Dallas, Tex.
 Morgan Millwork Co., The, Baltimore, Md.
 Morison Lumber Co., Crawford, Nebr.
 Morrison-Merrill & Co., Salt Lake City, Utah.
 National Wood Works, Sioux City, Iowa.
 New Castle Lumber & Supply Co., New Castle, Pa.
 New Orleans, Inc., Better Business Bureau of, New Orleans, La. (In principle.)
 Newton Co., F. H., Cambridge, Mass.
 Newton Lumber Co., The, Pueblo, Colo.
 Newton Lumber & Manufacturing Co., The, Colorado Springs, Colo.
 Nollau & Wolf Manufacturing Co., The, Chicago, Ill.
 North Side Sash & Door Co., Chicago, Ill.
 Northern Lumber Co., Billings, Mont.
 Northwest Door Co., Tacoma, Wash.
 O & N Lumber Co., Menomonie, Wis.
 O'Neill Manufacturing Co., Rome, Ga.
 Pacific Mutual Door Co., Tacoma, Wash.
 Pacific Wood Products Corporation, Los Angeles, Calif.
 Pease Woodwork Co., Inc., Cincinnati, Ohio.
 Portsmouth Lumber Corporation, Portsmouth, Va.
 Queen City Sash & Door Co., The, Cincinnati, Ohio.
 Radford & Sanders, Inc., Baltimore, Md.
 Red River Lumber Co., The, Los Angeles, Calif.
 Roberson & Son, Inc., A., Binghamton, N. Y.
 Robinson Manufacturing Co., Everett, Wash.
 Rockwell Bros. & Co., Houston, Tex.
 Rogers Lumber Co. Wholesale, The T. H., McAlester, Okla.
 Ruggles Lumber Co., Carlos, Springfield, Mass.
 Rohrer Lumber Co., D. J., Clintonville, Wis.
 Rust Sash & Door Co., Kansas City, Mo.
 Santa Fe Builders Supply Co., Santa Fe, N. Mex.
 Sawyer Woodworking Co., Joliet, Ill.
 Schell-Sasse Manufacturing Co., Jacksonville, Fla.
 Schirmer, R. F., Woodhaven, N. Y.
 Schmidt & Sons Co., Wm. H., Wauwatosa, Wis.
 Searle & Chapin Lumber Co., Lincoln, Nebr.
 Sears, Roebuck & Co., Chicago, Ill.
- Segelke & Kohlhaus Co., LaCrosse, Wis.
 Shannon Sash & Door Co., Kansas City, Kans.
 Shenk Co., Henry, Erie, Pa.
 Sherman's Sons Co., R. A., Westerly, R. I.
 Shutts & Morrison, Erie, Pa.
 Sidells, Arthur F., and Keppel, Ellis M., Warren, Ohio.
 Sitterding, Carneal, Davis Co., Richmond, Va.
 Smith Co., The Allen A., Toldeo, Ohio.
 Smith Co., Inc., E. E., Providence, R. I.
 Smith & Rumery Co., Portland, Maine.
 Snedaker & Co., Inc., Frank G., Philadelphia, Pa.
 Southwestern Sash & Door Co., Inc., Phoenix, Ariz.
 Standard Lumber Co., Pine Bluff, Ark.
 Standard Manufacturing Co., The, Appleton, Wis.
 Stravs, Carl B., Minneapolis, Minn.
 Summers Hardware & Supply Co., Johnson City, Tenn.
 Sweetwater Sash & Door Co., Sweetwater, Tex.
 Throop-Martin Co., The, Columbus, Ohio.
 Toledo Door & Sash Co., Toledo, Ohio. (In principle.)
 Toombs-Fay Co., Springfield, Mo.
 Trexler Lumber Co., Allentown, Pa.
 Tulane Hardwood Lumber Co., Inc., New Orleans, La.
 Tulsa Rig Reel & Manufacturing Co., Tulsa, Okla.
 Underwood Coal & Supply Co., Mobile, Ala.
 Union Planing Mill, Inc., Stockton, Calif.
 United Sash, Door & Glass Co., Tucson, Ariz.
 Vaughan & Sons, Geo. C., Houston, Tex.
 Vogel, Willis A., Toledo, Ohio.
 Wahlfeld Manufacturing Co., Peoria, Ill.
 Walsh, Louis A., Waterbury, Conn.
 Ware, W. E., Salt Lake City, Utah.
 Washington Door Co., Tacoma, Wash.
 Washington Woodworking Co., Inc., The, Washington, D. C.
 Weinel Lumber Co., Aug. F., Columbia, Ill.
 Westall & Company, W. H., Asheville, N. C.
 Western Door & Sash Co., Oakland, Calif.
 Western Hardwood Lumber Co., Los Angeles, Calif.
 Western Woodworking Co., Inc., Bellingham, Wash.
 Westover-Kamm Co., Bay City, Mich.
 Wheeler Osgood Sales Corporation, Chicago, Ill., and Tacoma, Wash.
 Whissel Lumber Co., Inc., L. N., Buffalo, N. Y.

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| Whitmer-Jackson Co., The, Cleveland, Ohio. | Wood Lumber Co., E. K., Los Angeles, Calif. |
| Whittier Lumber & Millwork Co., Newark, N. J. | Woodruff Lumber Co., Duluth, Minn. |
| Wilbur Lumber Co., West Allis, Wis. | |
| Willingham & Co., Chattanooga, Tenn. | U. S. GOVERNMENT |
| Willingham-Tift Lumber Co., Atlanta, Ga. | War Department, Washington, D. C. |

COMMERCIAL STANDARDS

| CS No. | Item | CS No. | Item |
|--------|---|--------|---|
| 0-30. | The commercial standards service and its value to business. | 40-32. | Surgeons' rubber gloves. |
| 1-32. | Clinical thermometers (second edition). | 41-32. | Surgeons' latex gloves. |
| 2-30. | Mopsticks. | 42-35. | Fiber insulating board (second edition). |
| 3-33. | Stoddard solvent (second edition). | 43-32. | Grading of sulphonated oils. |
| 4-29. | Staple porcelain (all-clay) plumbing fixtures. | 44-32. | Apple wraps. |
| 5-29. | Steel pipe nipples. | 45-38. | Douglas fir plywood (domestic grades) (third edition). |
| 6-31. | Wrought-iron pipe nipples (second edition). | 46-36. | Hosiery lengths and sizes (second edition). |
| 7-29. | Standard weight malleable iron or steel screwed unions. | 47-34. | Marking of gold-filled and rolled-gold-plate articles other than watch cases. |
| 8-33. | Gage blanks (second edition). | 48-34. | Domestic burners for Pennsylvania anthracite (underfeed type). |
| 9-33. | Builders' template hardware (second edition). | 49-34. | Chip board, laminated chip board, and miscellaneous boards for bookbinding purposes. |
| 10-29. | Brass pipe nipples. | 50-34. | Binders board for bookbinding and other purposes. |
| 11-29. | Regain of mercerized cotton yarns. | 51-35. | Marking articles made of silver in combination with gold. |
| 12-38. | Fuel oils (fourth edition). | 52-35. | Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze). |
| 13-39. | Dress patterns (second edition). | 53-35. | Colors and finishes for cast stone. |
| 14-31. | Boys' blouses, button-on waists, shirts, and junior shirts. | 54-35. | Mattresses for hospitals. |
| 15-29. | Men's pajamas. | 55-35. | Mattresses for institutions. |
| 16-29. | Wall paper. | 56-36. | Oak flooring. |
| 17-32. | Diamond core drill fittings (second edition). | 57-36. | Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings. |
| 18-29. | Hickory golf shafts. | 58-36. | Woven elastic fabrics for use in overalls (overall elastic webbing). |
| 19-32. | Foundry patterns of wood (second edition). | 59-36. | Woven dress fabrics—testing and reporting. |
| 20-36. | Staple vitreous china plumbing fixtures (second edition). | 60-36. | Hardwood dimension lumber. |
| 21-36. | Interchangeable ground-glass joints, stopcocks, and stoppers (third edition). | 61-37. | Wood-slat venetian blinds. |
| 22-30. | Builders' hardware (nontemplate). | 62-38. | Colors for kitchen accessories. |
| 23-30. | Feldspar. | 63-38. | Colors for bathroom accessories. |
| 24-30. | Standard screw threads. | 64-37. | Walnut veneers. |
| 25-30. | Special screw threads. | 65-38. | Wool and part-wool fabrics. |
| 26-30. | Aromatic red cedar closet lining. | 66-38. | Marking of articles made wholly or in part of platinum. |
| 27-36. | Mirrors (second edition). | 67-38. | Marking articles made of karat gold. |
| 28-32. | Cotton fabric tents, tarpaulins, and covers. | 68-38. | Liquid hypochlorite disinfectant. |
| 29-31. | Staple seats for water-closet bowls. | 69-39. | Pine oil disinfectant. |
| 30-31. | Colors for sanitary ware. | 70-38. | Coal tar disinfectant (emulsifying type). |
| 31-38. | Wood shingles (fourth edition). | 71-38. | Cresylic disinfectants. |
| 32-31. | Cotton cloth for rubber and pyroxylin coating. | 72-38. | Household insecticide (liquid spray type). |
| 33-32. | Knit underwear (exclusive of rayon). | 73-38. | Old growth douglas fir standard stock doors. |
| 34-31. | Bag, case, and strap leather. | | |
| 35-31. | Plywood (Hardwood and Eastern Red Cedar). | | |
| 36-33. | Fourdriner 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). | | |

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of every day practice in their industry, 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.

